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NOTES ON CHILDREN'S DRAWINGS

EDITED BY

ELMER E. BROWN

Professor of the Science and Art of Teaching

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PREFATORY NOTE.

THE papers here presented were prepared in the winter and early spring of 1894-5, and the summary of results was completed in the fall of that year. They were not printed at that time for lack of a publication fund. In the meantime three important works have appeared bearing on the subject of children's drawings, namely, those of Baldwin, Sully, and Lukens. Some of our conclusions have been anticipated in these works; but it has seemed that what we here offer might still be a not unwelcome contribution to the study of this fascinating subject. The papers are accordingly presented in their original form, with only so much of change as was necessary to make mention of the chief points of contact between them and the three works named above.

For the means wherewith to publish our little monograph at this time, we are indebted to Mrs. Phebe Hearst, whose large and numerous benefactions to the University of California are already well known throughout the land. Valuable service has been rendered by Miss M. W. Shinn in arranging for the reproduction of drawings and other details.

E. E. B.

NOTES ON CHILDREN'S DRAWINGS.

THE reports here presented are the work of the Graduate Seminary in Pedagogy at the University of California, which includes a Child Study Section of the Association of Collegiate Alumnæ. They are based upon careful records, begun in each case very early in the life of the child. In presenting a general survey of results, I have relied mainly upon these four reports and the accompanying drawings; but have also made use, to some extent, of the observations of other members of the Seminary and my own observations and personal recollections.

The reports were prepared in answer to a series of eight questions, copies of which were sent to the observers after their notes had been discussed informally in two or three meetings of the Seminary. The questions asked were the following:

1. What do you know of the circumstances under which the child began to draw? Did he do any drawing before he saw others draw? If he drew at first without any apparent purpose, can you tell when and how he began drawing with a definite end in view?
2. Was his earliest purpose the representation of objects, or the making of forms of beauty? When and how did the other of these two purposes begin to appear in his drawing? How far does an attempt at symmetry appear in his drawing?
3. At what age did you see him make a distinct attempt to copy another's drawing? At what age did you first see him make a distinct attempt to represent the exact appearance of an object before him, looking at the object itself for guidance?
4. Does he seem to regard his drawing as an adequate representation of what he has attempted to draw? Have you seen signs of his being discouraged because of inability to make his drawing conform to his mental picture of the object?
5. What indications have you seen of a disposition to make the drawing merely a symbol of the object rather than an actual representation?
6. What indications have you seen of a disposition to con-

ventionalize, representing with simple curves and straight lines the general outlines of objects, when he is able to represent the same objects with approximate accuracy?

7. Does he pay especial attention to the outlines of the objects he is drawing or to their general direction, size, and form? Have you noticed any change in this respect?

8. Does he show the more interest in form or color? What changes have you noticed in this respect from year to year?

It will doubtless be noticed that some of these questions overlap others in certain particulars; but they were framed with reference to the convenient grouping of facts that had already been reported and discussed in the Seminary, rather than to a strictly logical treatment of the subject. The form of question might have been improved in several cases, particularly in number 7. I have not thought it best, however, to introduce an element of confusion by presenting the original answers coupled with an amended form of question.

Of the children referred to in these reports, Ruth was born December 22, 1889. She lives in the city, and has for her chief playmate a sister two years older than herself. Bayard was born October 2, 1891. He is the youngest of a family of four boys, and lives in the city. Carroll was born September 23, 1890. He too lives in the city, and is the youngest of a family of three. Ruth W. is the only one of the four who lives in the country. She is taken occasionally to the city. She was born October 6, 1890. She is the only child in a family of adults; but she plays now and then with neighbors' children. All four are of American parentage. Bayard is the only one having artistic antecedents, his mother being skilled in wood-engraving. In the case of Ruth W. the observations were made by an aunt living in the same house with the child. In each of the other three cases the observations were made and reported by the mother of the child.

RUTH W.

BY MILICENT WASHBURN SHINN.

THE child's first knowledge of drawing of any sort was late in the eighteenth month, when her mother drew a square and circle for her; after this she often asked to have them drawn again, and ten days later tried of her own accord to draw a circle. From this time on at intervals she tried to draw the geometric figures she knew, — the angular ones, I suspect, at first only by accident. (See Notes on the Development of a Child, pp. 58, 96.)

Pictorial drawing was stumbled upon, in the twenty-seventh month. We had avoided drawing pictures for her, to see if the impulse would originate spontaneously, and how. About the middle of the twenty-seventh month, while scribbling aimlessly, she cried out that she had made a mouse. This figure was destroyed before I could see it. I expressed great regret and told the child she must draw me another mouse. The next morning, as soon as she was awake, she crept into her mother's bed and demanded pencil and paper to "draw a mouse for aunty." Here was the first deliberate purpose of representation. After several trials she gave it up, and asked her mother to do it. Her mother then drew copies for her to follow, which she did (Fig. 1). Her earliest deliberate drawings, therefore, are copies.



Fig. 1. 27th month. (a, d) Mother's drawing; (b, c, e) child's copy.

The next day, however, Figs. 2 and 3 were (in my presence) drawn with no copy and by intention, for they were named *as she drew*, not afterward.¹

The first, accidental mouse had no legs or tail till at her mother's suggestion she added them, — the legs being two in number. At this time she scarcely understood number above two; months after, she could not tell from memory how many legs her kitten had. In drawing her second mouse she added legs and tail of her own

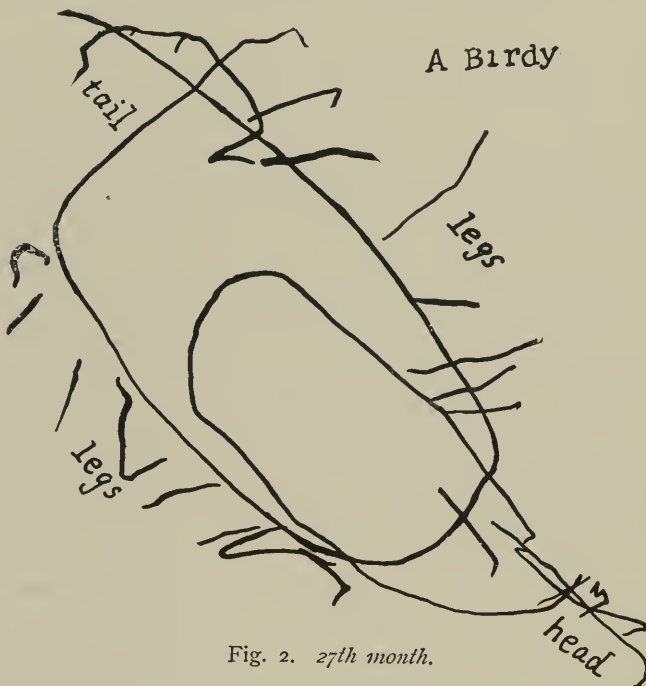


Fig. 2. 27th month.

accord. When she had made four legs her mother suggested that that was enough, but the child said, "No, I give dat mouse more legs, so he can wun wight away." So notice also the indefinite number of legs given the bird and cat in Figs. 2 and 3, — fringing

¹In all these reproductions that are made from tracings the firmness of the original lines suffers. Their freedom and evenness were as a rule quite striking. Even in large drawings, as Fig. 7, the line was carried from end to end of each part of the figure quickly and steadily without raising the pencil. In drawings of the latter part of the 3d year, closed figures were drawn with a line that returned to its beginning so perfectly that I could not find the joining, and yet with a motion more quick and free than I could repeat in tracing. See Figs. 20, 21, 22.

Figs. 12, 14, 15, 17, 18, and the smaller drawing in 16, are reproduced directly from the child's own drawings, which were made with ink.

Figs. 1-23, are of the same size as the original drawing, except where otherwise noted. A reduction of one-fourth diameter, of course, makes the figure one-half the original size; of one-half diameter, one-quarter the original size.

both sides of the bird. Eyes appear in Fig. 3, but I suspect by suggestion: as she made the lower one, which seems more likely to be meant for a leg, her mother cried, "She is making an eye!" She then made the other one, and when I asked her some minutes

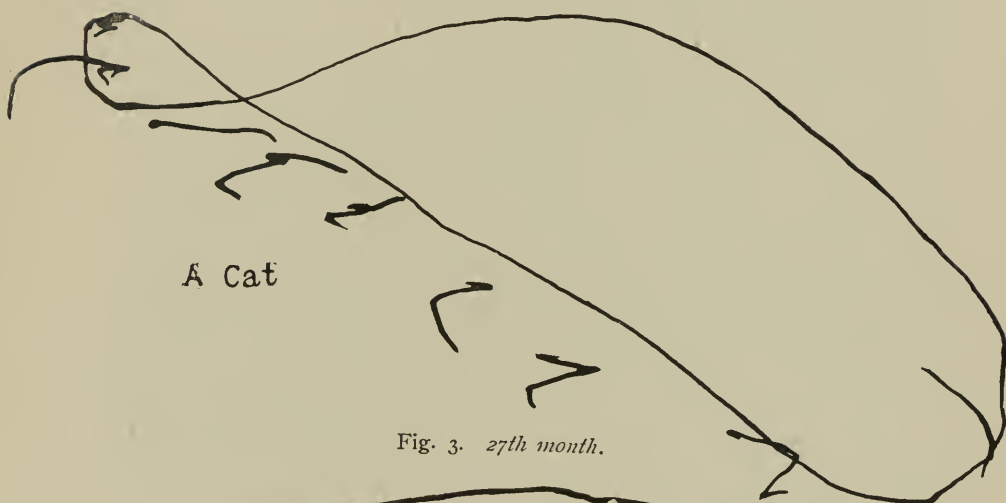


Fig. 3. 27th month.

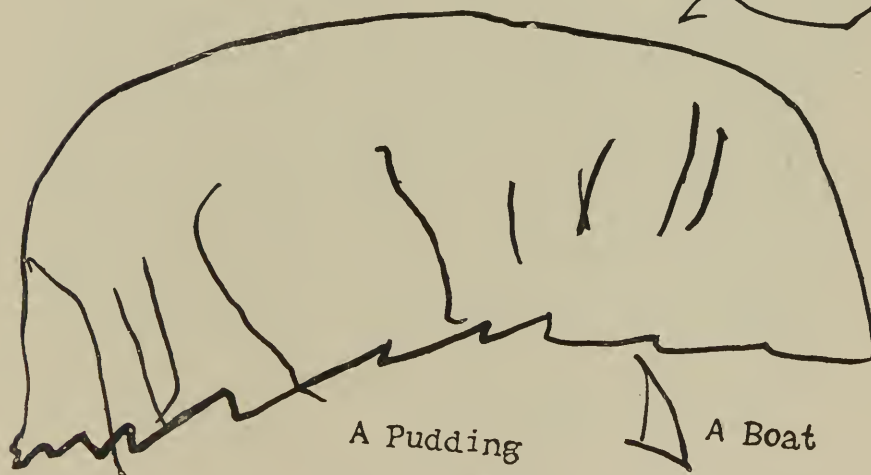


Fig. 4. 27th month.

later what they were, she said, "Eyes!" in a tone that implied they could be nothing else.

A few days later she produced the "pudding" and "boat" (Fig. 4), which were probably first drawn and then named from accidental

resemblances. In the following month, certainly, (the 28th), I was satisfied that so far as she tried to draw pictures at all her method was to draw a closed figure, and then try to find some representation in it. She would introduce various irregularities into her line in an experimental way, apparently hoping to stumble upon some new resemblance. Usually, however, she did not try even in this random way to draw pictures, but made mere concentric figures,

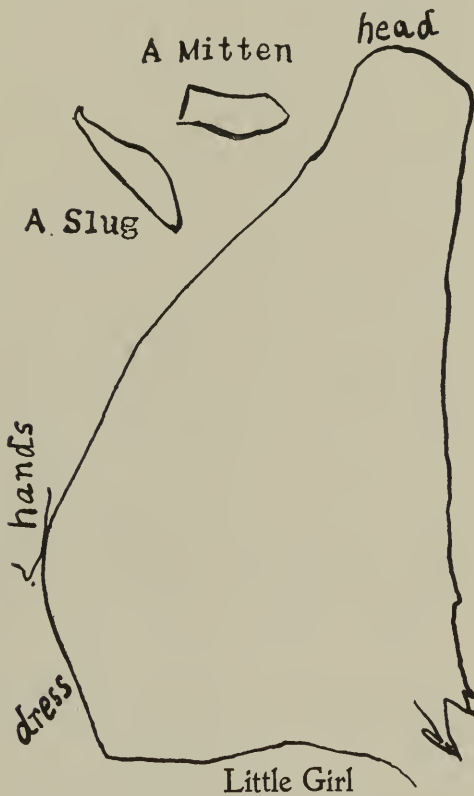


Fig. 5. 28th month.

beginning with the smallest, and tracing the others around it by a rudely parallel outline. Only six figures were named in this period, drawn on three different days: the best are given in Fig. 5. She was not asked "What is that?" but herself called our attention, saying, "See, that is a mitten," etc.

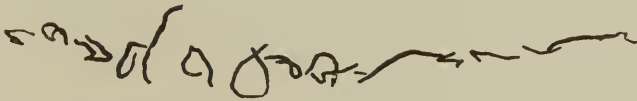
It is evident that broad outline still prevailed, and detail was scarcely thought of, — as was perhaps a necessary result of the method of drawing by accident, so to say. When the "little girl" picture (Fig. 5) was brought to me, I asked, "What is this?" and, "What is this?" and the head and dress were

named promptly in answer. The child then added of her own accord, "I must make her little hands," and put on the faint tag at the left of the drawing. I said, "Is that her little hands?" She answered, "Yes," but seemed dissatisfied, and after looking carefully at her own hands, turned to something else.

There now followed a period of apparent discouragement and unwillingness to try to draw, lasting for more than six months. Once in that time she was induced to try to draw a daffodil, but could not do anything, and even with a copy produced nothing distinct; and once, late in the thirtieth month, asked for a pen to draw a cat, but after vaguely marking a little, said she did not know how, and gave it up.

During this whole interval she begged me, for weeks at a time almost daily, to draw cats for her. Her great desire for this and strong sense of inability to do it herself, overcame my objection to letting her see others draw; and I feared that if I refused she would lose interest in the whole subject, or come to conceive the finished pictures in books the only ones possible, — a difficulty the primitive savage did not encounter. She would watch with silent interest and absorption as long as I would “make a cat,” — now calling for a “bi-ig, bi-i-ig one;” now for a “lee-eetle tiny bit of one.” It was while watching me draw these cats that she asked once for the pen to try herself, as mentioned above.

She would ask me at first to “write” her a cat, but when I began to write the word, would say, “No, *make* a cat.” She undoubtedly understood some months before this something of the nature and object of writing. She never tried to find any pictorial purpose in it; from the first she used a different method when imitating writing and when simply scribbling (see *Notes on the Development of a Child*, pp. 98, 99); and by the twenty-eighth month she showed some understanding of writing as a representation of sounds and speech. This had been taught by hearing letters read, by dictating messages, and by a little spelling. The following was appended to a drawing; she told her mother this was “c-a-t, cat,” and told me it was “d-o-g, dog:”



After this six months' hiatus, one day in the thirty-fifth month she began again to name some figures after drawing them; and again, late in the month, when I was drawing cats for her, volunteered to draw an egg, which was merely an ellipse, of course; then

at my request she drew the geometric figures (Notes on the Development of a Child, p. 101). In the latter part of the thirty-sixth month she once tore paper into bits, and asked about each one, "What does that look like?" desiring to find resemblances.

With the next day began a second period of interest and confidence in drawing, lasting some three weeks. She now tried to produce given results; but they were not satisfactory to herself, and

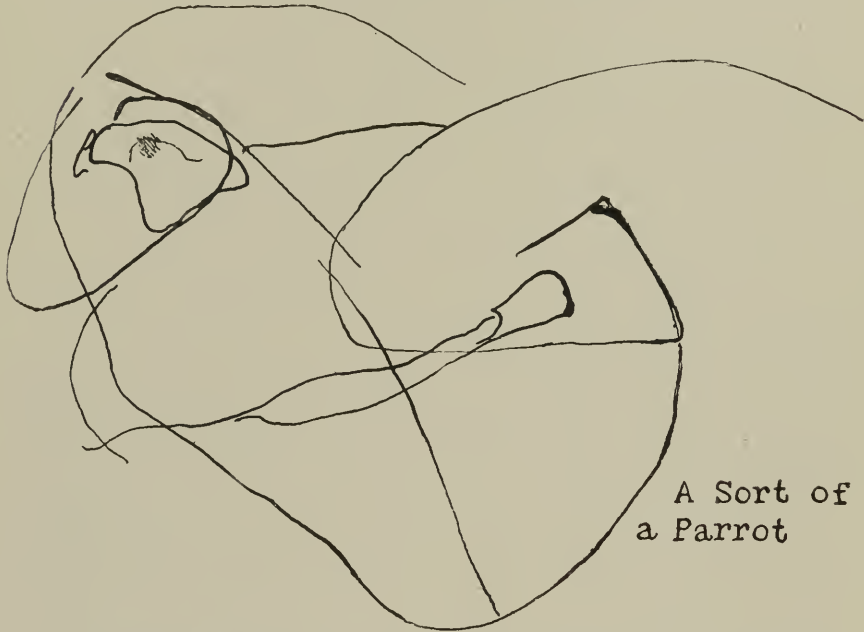


Fig. 6. 36th month. Having accidentally poked the pencil through the paper in this drawing, the child called for a knife to "cut out the hole;" she did not want it there; no, it was not the parrot's eye, it was an "old hole;" if she cut it out, the picture would look like a parrot. I told her that then there would be a bigger hole. She thought this over, and replied, "Den dat hole will be its eye;" but ended by leaving it as it was.

she called them deprecatingly, "A sort of a parrot" (Fig. 6), "A kind of a cat — it's a diffunt kind."

A couple of days later an interest in detail appeared, which completely changed the manner of drawing. Individual features were now attended to, and the relation between them neglected. Thus Fig. 7 (see note). Fig. 8 is a combination of this method and

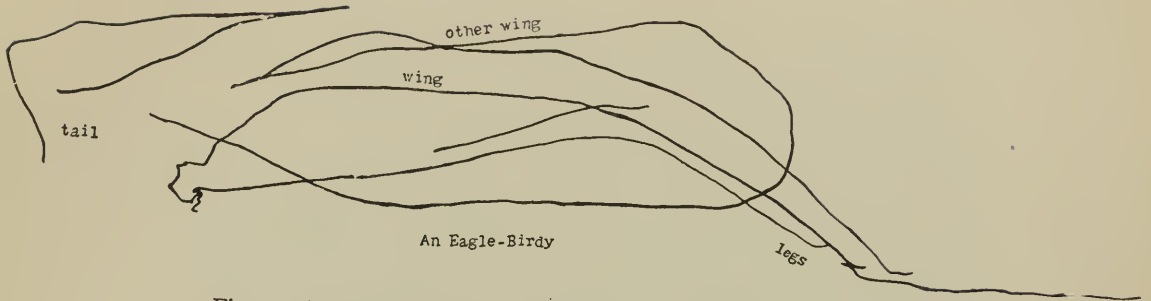


Fig. 7. (Reduced to one-half diameter.) 36th month. The child said: "Now I'm going to make an eagle-birdy." She drew the lower long loop, saying, "Dis is his wing;" then the upper, and when asked what it was, answered, "His uvvay wing;" then named the "legs." "But where is his beak?" I asked. She then drew the detached figure, and said, "Dat is his beak, and dat is his tail,—his tail is wight on de beak!"

the old one of trying for an accidental picture (see note). Within a week, outline fell into total neglect, and indistinguishable jumbles were produced as elephants, dogs, cats, birds, etc. Thus the day before she was three years old, I watched the process of drawing an "evysant." "Dis is his long t'unk," she said, drawing a rude representation; then near by, partly across the trunk, "Dis is his

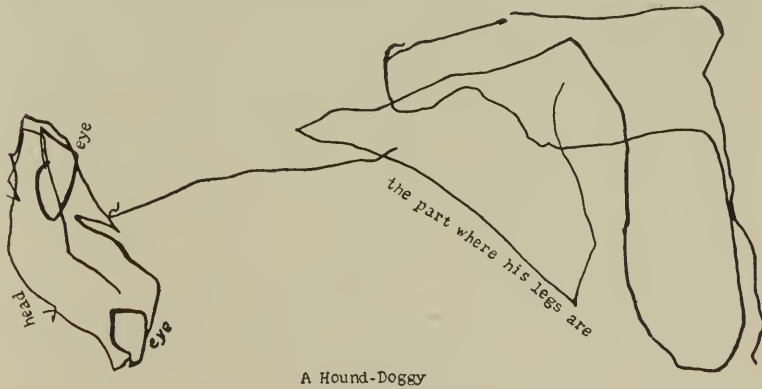


Fig. 8. (Reduced to one-half diameter.) 36th month. The smaller closed figure at the left was first drawn, at random, and the child asked me what it was. After several efforts that did not satisfy her, I named it a dog's head, from the profile resemblance. This pleased her, and she took it back and added the eyes (in full face) and the larger figure, which she called "the part where his legs are," connected by a line with the head. She called the drawing "a hound-doggy — a fine, big hound."

big round foot;" then, "Dis is his hair," scrawling over the whole surface around the foot and trunk; "Dis is his uvvay foot," adding another circle without regard to position in the medley; "Dis is his head," adding another in the same way, and placing within it smaller ones for eyes and nose; "Dis is his 'tomach," — another circle somewhere in the waste of hair; "And *dis*," indicating the whole scrawl, "is de *whole of him*." What with the extreme rudeness of the individual features, and the complete disorder of their relation, by the time such a drawing was done it was impossible to trace any purpose in it. Had I not seen the process, I should certainly have thought these drawings mere scrawls, named by the child purely as symbols. This suggests one possibility of mistake in setting down drawings as symbolic that may after all have been made with pictorial purpose.

A Kitty Sitting Up



Fig. 9. 38th month. (a) Eyes, nose, and mouth; (b) "her little front paws;" (c) "her little back paws;" (d) "her little 'tomach;" (e, e) an extra pair of paws, added as an afterthought, the purpose of the marks at (b) perhaps being forgotten.

Although such a drawing is in results a retrogression, it was probably in essence an advance, the purpose of representing nature becoming more definite, and the conception more complex; but the increase of material to be used was more than the child could man-

age; the conception of a whole composed of parts was to a certain extent formulated, but attention to the component parts caused her to neglect the older idea of general form, while the idea of relation among parts was scarcely yet conceived. The one relation of facial features to face is clear already, and the fact that the child commented on the eagle's tail being attached to his beak (Fig. 7, note) shows that she felt some impropriety in such a relation.

Another loss of interest in drawing, or of self-confidence, followed, and lasted about six weeks. During this time, as continuously for eight months, she begged me to draw cats for her. In the last week of the thirty-eighth month she began to draw again herself, and drew the "kitty sitting up" (Fig. 9), in which the attention to features appears, now united with attention to general outline. Notice that as first drawn the number of legs is now correct and they are correctly placed. It might be supposed that this drawing, and the considerable advance shown by it, were due to the hundreds of cat-drawings she had watched me make; but in fact the type was quite different: the cat I had drawn for her for months was a rude conventional figure, representing a cat lying down (Fig. 10); and though in the last few days she had asked for new styles, I had drawn her only running cats, in profile; while this one of hers bore an unmistakable resemblance to a familiar stuffed cloth cat in a sitting position, not to any of my drawings.



Fig. 10.

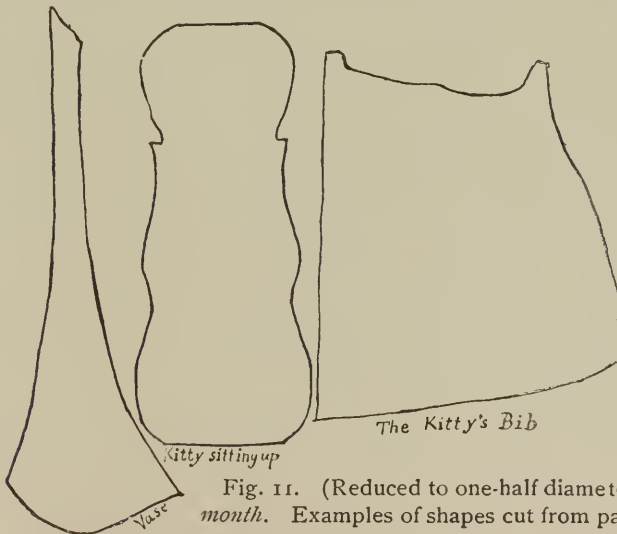


Fig. 11. (Reduced to one-half diameter.) 39th month. Examples of shapes cut from paper.

There may have been a few other drawings in this week; then followed another loss of interest for about six weeks. Some papers, cut into shape at random and then named without help (Fig. 11, p. 13), show continued sense of outline; this was late in the thirty-ninth month. Early in the fortieth, another cat was drawn (Fig. 12), possibly remotely suggested by the running cats of my drawing; but the disposition of head and body as two different outlines is original. The members are arranged quite correctly, though a difficulty was experienced in representing on flat surface the relation of paws and body, and the eyes appear as if in full front face. Feet are now carefully added to the legs, and ears to the head.



Fig. 12. 40th month. At the left an imitation of the printed "c-a-t" that I often added to my drawings. The child herself observed the disproportionate size of the head; criticizing, "Pretty big head!"

In the last week of the month the human figure was first deliberately attempted. The first of these drawings, "A doll or a little girl" (Fig. 13, b), was not drawn in my presence, but I was assured that it was spontaneous. No human figures had ever been drawn for the child, and the only suggestion she could have had was from a few paper figures cut for her (Fig. 13, a). The facial features had undoubtedly been impressed upon her mind thus.

The next day I asked her to draw me a little girl, and she drew Fig. 14, a, b, c, (p. 16), promptly and confidently, while I watched. I then asked for her papa, but she said she would draw instead a mamma and an aunty, and drew the next two figures (d, e); then the father (f). The essential feature in all is the long sac, representing the whole human figure, — usually added to a head, first drawn, though

in a few instances the face is simply placed in the upper end of the sac (a). Other figures were drawn in the next few weeks, all following the same general type; some showed careless deterioration, others advance (Fig. 15, p. 18).

It will be observed that large general traits still lead, but detail increases. The method of rendering the features is not at all fixed: feet, shoes, eyes, noses, mouths, hands, are differently made in the different drawings; in Fig. 14, c, the mouth is even drawn in two different ways in the same face, the first mouth having been too high up, though the extraordinary length of chin in Fig. 14, f, did not trouble her in the least, nor the fact that in several others the nose crosses the forehead, and passes altogether out of the head. Some regard for bilateral symmetry is shown by her criticising the

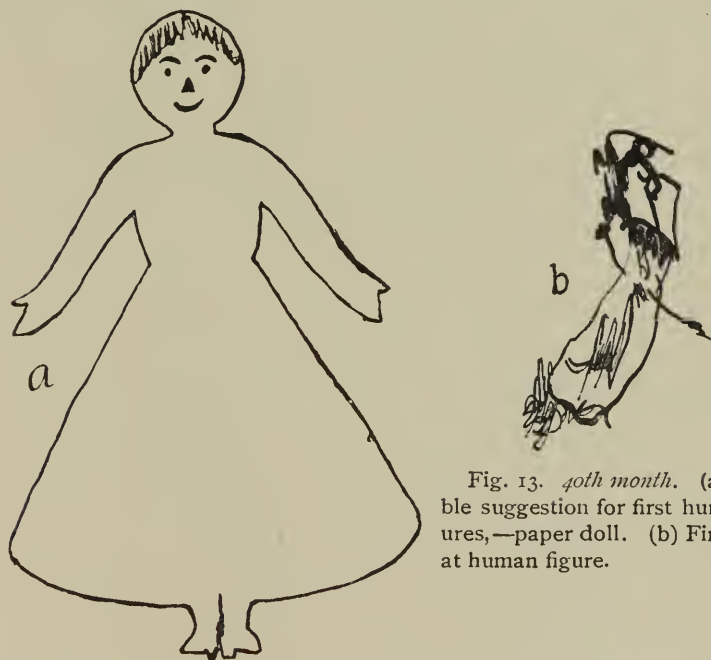
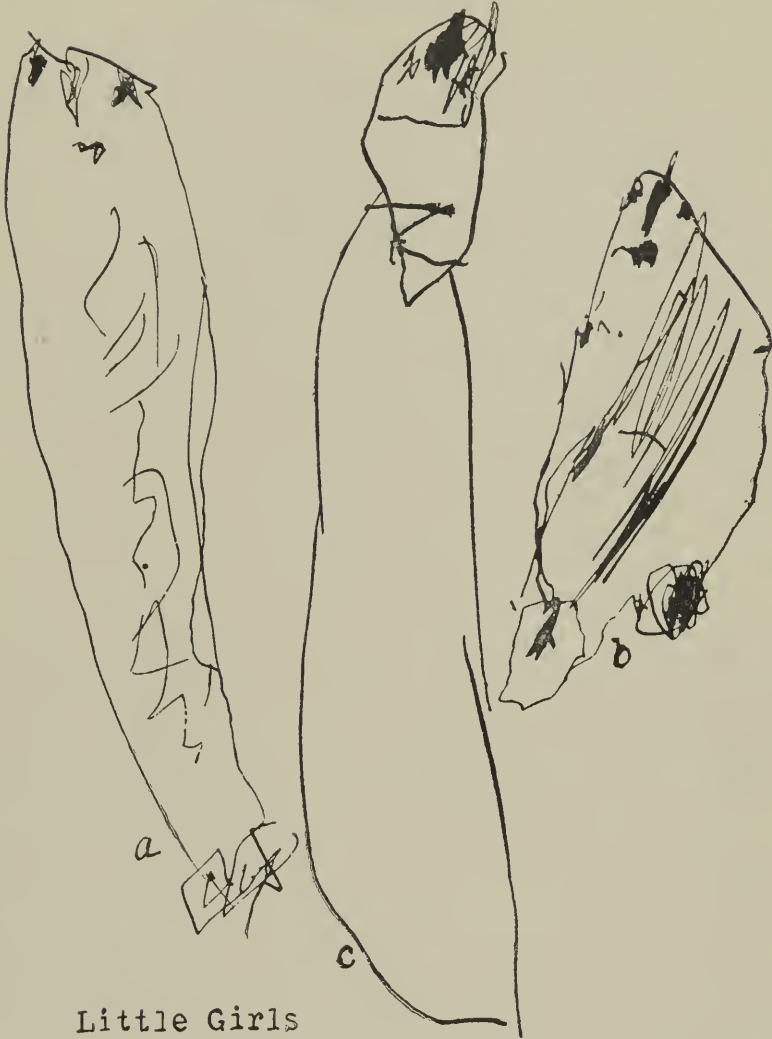


Fig. 13. *40th month.* (a) Possible suggestion for first human figures,—paper doll. (b) First effort at human figure.

unequal size of the eyes in Fig. 14, f, and the arms in Fig. 14, e; and in 15, a, the legs are carefully brought to equal length by a series of annexes, first one side, then the other. In Fig. 15, b and c, however, conspicuous inequalities of eyes did not trouble her, and one leg in (b) is forgotten entirely.



Little Girls

Fig. 14. (d, e, f, g, reduced to one-half diameter; a, b, c, original size.)
40th month.

The scribbling inside the trunk in (a) (b) (d) (e) is the stomach; while making similar scribbling in Fig. 13, b, the child remarked, "She has black insides." See also in Figs. 9 and 20.

In (a) (b) and (d) the feet are first drawn, then enclosed in shoes; in (e) feet are only indicated. Note that arms are usually wanting. The great discrepancy in length of arms in (e) is due to exigency of space. A remarkable detail is the device for providing legs in f, apparently by an afterthought, the long extension of the trunk being made to serve as one, while another was annexed to the side of the body.

A Namma



d

Papa



f



An Aunty
or
Aunty Washburn Shinn

2



Grandma

g

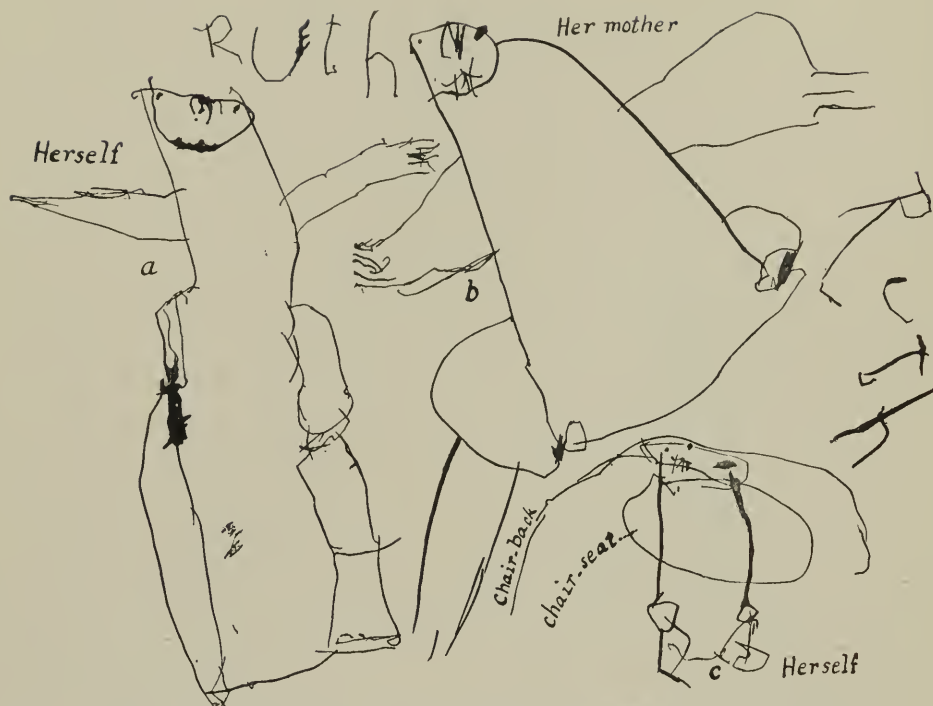


Fig. 15. (Reduced to one-half diameter.) 41st month. The septum of the nose is carefully put in ("This is what we have between the sides of our nose"). Fingers are added to the hands, and in (b) and (c) teeth to the mouth.

In (b) the feet were at first added directly to the trunk, then legs were remembered, and one was added. The lines bounding the trunk were called "sides." In (c) the straight lines were called "sides," and end in feet with shoes *attached* below, while the line that closes the trunk runs between the shoes. These details were explained by the child as she drew them.

Wherever legs appear, they are attached at the side. It is also noticeable that legs and arms are always, after the very first, represented as thick bodies, not lines.

Other drawings besides the human figure were made meanwhile. The last day of the fortieth month, I was told, the child drew a table, and began to draw people about it; then, desisting, cried, "I don't need to make the people," and getting little shreds laid them about on the paper for people. The first day of the forty-first month she drew two cats (Fig. 16).

In this same week, the first of the forty-first month, appeared quite suddenly the ability to form letters, to print her own name without help (Fig. 15, a, from copy; b, without copy or supervision), and to understand quite clearly the process of printing words. This had been, of course, taught, though in a desultory fashion.

Her favorite indoor occupation was now drawing and writing with ink (which she used quite safely at the desk by herself, if the inkstand was heavy and firm), and still more, painting with water-color and brush. She began to like kindergarten outline stitching, an occupation she had hitherto detested. Kindergarten disks for "parquetry" designs pleased her, but only for the fun of gumming them on paper; under stimulus she would make some effort at design,



Fig. 16. (Reduced to one-half diameter.) 41st month. The cat sitting up was probably suggested, like Fig. 9, by her cloth cat; the other was evidently (from her manner of drawing) imitated from the cat in Fig. 10.

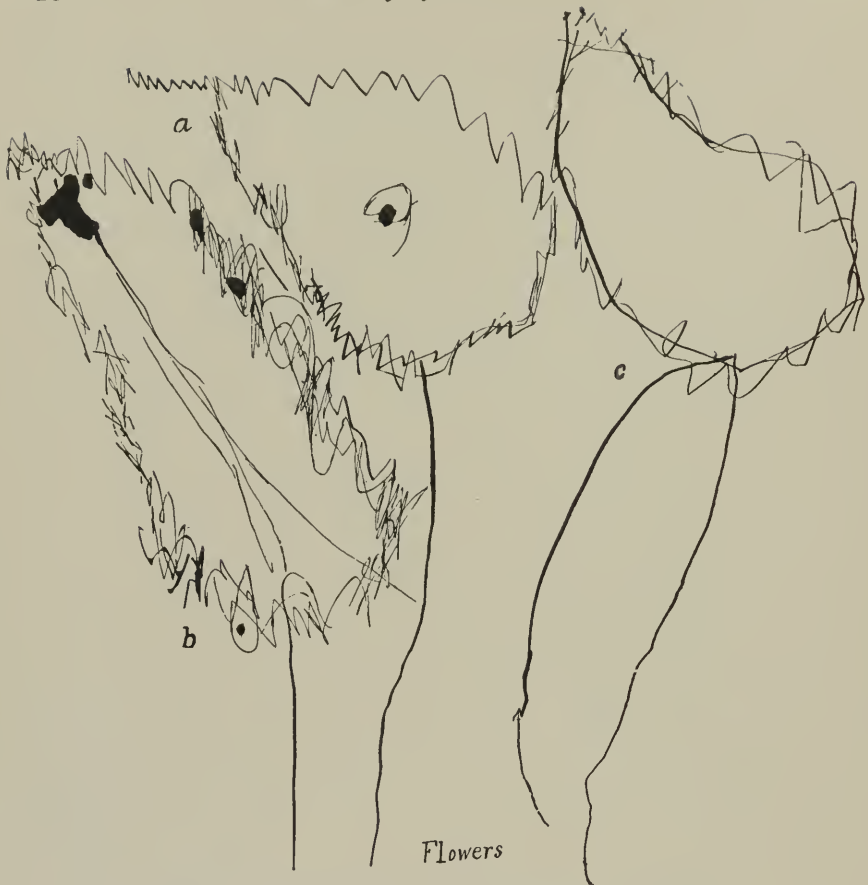


Fig. 17. (Reduced to one-half diameter.) 41st month.

but without originality, and so inaccurately that no purpose could be traced when she had done.

In the middle of the month flowers were first attempted (Fig. 17). This was suggested to her. A conventional daisy was drawn for her, and the next day she was asked to "draw a flower," without a copy, and drew (a), imitating the continuous *motion* with which she had seen the petals made, but probably not understanding well the purpose; then drew (b) for "a long flower," evidently modifying the type from her memory of nature; and in (c) introduced the solid stem and plain outline which seemed to express better her own idea. The intense sense of solidity in stems, as



Fig. 18. *41st month.*

formerly in arms and legs, is remarkable: the single line, in (a) and (b), was influenced by the copy she had seen drawn.

Several flowers were drawn after this type; one, which ingeniously utilized an envelope fastening as a center, had three concentric petal-rings. The next day appeared a surprising advance in realism, seen in Fig. 18, a. I found it difficult to believe this entirely spontaneous; I could not learn, however, that there had been any copy or suggestion, though I questioned every member of the family. I then asked her to draw me another, and she did so confidently, with clear purpose from the outset, saying, "Dat is de

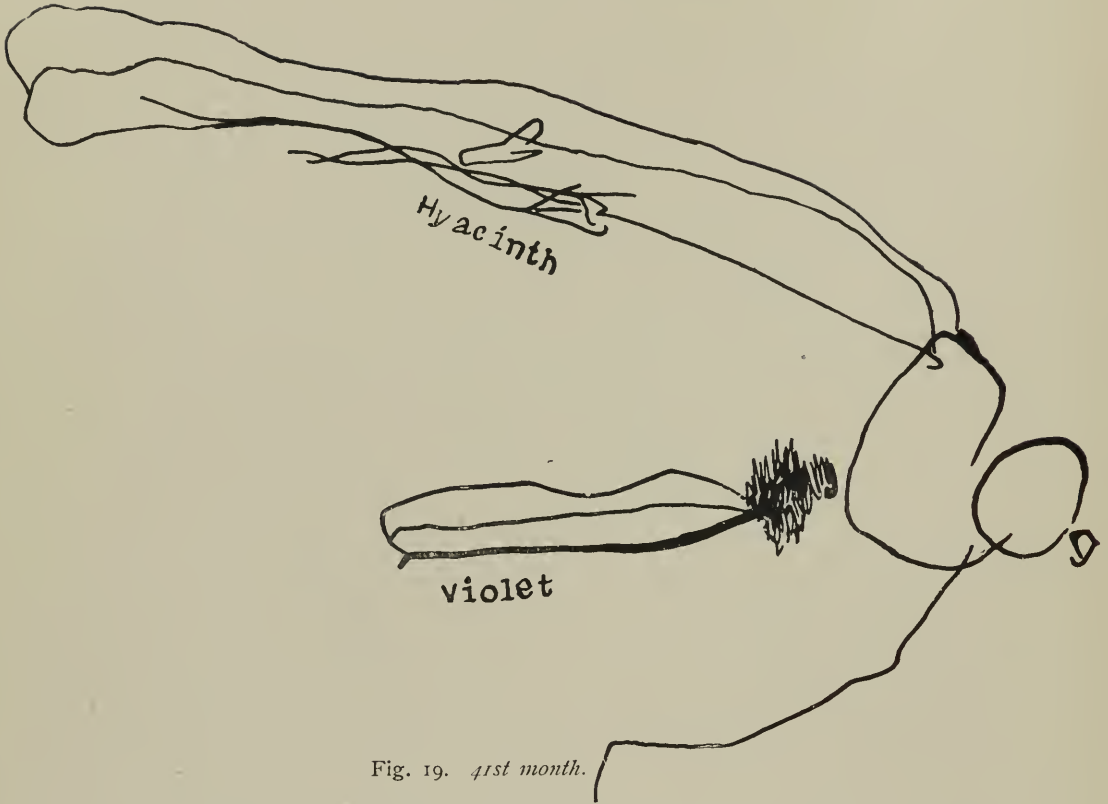


Fig. 19. 41st month.

center," "Dat is a petal," "Here I leave a place for de'tem." (Fig. 18, b.) After drawing a single line for a stem, she looked at it, and then carefully doubled it. A number of flowers were drawn on this type, the child being greatly interested.

I then took a violet from the vase, and suggested that she copy it, — her first attempt to draw from nature. She did so readily (Fig. 19), and her method was purely spontaneous, for she had never seen a violet drawn. She looked at the flower and deliberately imitated, — doubtless aided by the purple color of the pencil she chanced to be using: she first made the scribbled spot for the flower, then added the stem, making it heavier by an added layer. She was pleased and satisfied with the result; and at once selected from the vase a small hyacinth, with one open bell, one half open, and a small bud, touched each bell, laid it down, and rapidly drew

from it (Fig. 19), — first three bells, then the stem at the right of the flowers; then saying, "No, dat 'tem is in de wrong place," she drew the heavy one on the left, increasing its solidity as she had that of the violet.

A lapse of interest and self-confidence in drawing followed for some four months. During this time, however, a visible increase of interest in design took place. At forty-one months, she took some pains to lay her oblong color tablets in a pattern, about thus: **I H I**, — then obscured by piling other tablets of different shape over the middle figure. She continued for some days to lay such patterns. A couple of weeks later, she made a noticeably symmetrical structure with her blocks, and her mother said, "That is a pretty house." The child answered, "That is n't a house, — that's only something to look pretty." This phrase she had doubtless heard, but only now adopted; it has since been in use a good deal. For several days the interest in symmetry was marked: at table, she ranged a set of paint-saucers (given her to occupy her) in a neat circle around a tower composed of two napkin-rings and a cracker. After that the interest relaxed. Two months later, being in the company of a young girl who occupied her daily in setting flowers in the sand-pile according to simple designs, she would imitate, but showed no originality.

In the forty-fifth month, drawing was started again by the suggestion that she draw a picture of her papa, and Fig. 20 was drawn. Observe the remarkable location of the neck, and the probable reason for it; also that she looked at me to get suggestions for the drawing (see Fig. p. 24).

During the forty-seventh month, another period of interest in symmetrical arrangements occurred. She drew such designs as the following (in which the sides of the slate supply the periphery).



She has kept up such drawing more or less since.

In the last week of the fourth year, asked to draw something, she consented quite readily, and said she wanted to draw "Miss Jessica's little watch" (of which we had just been speaking). She sat down and confidently drew Fig. 21, explaining as she drew:

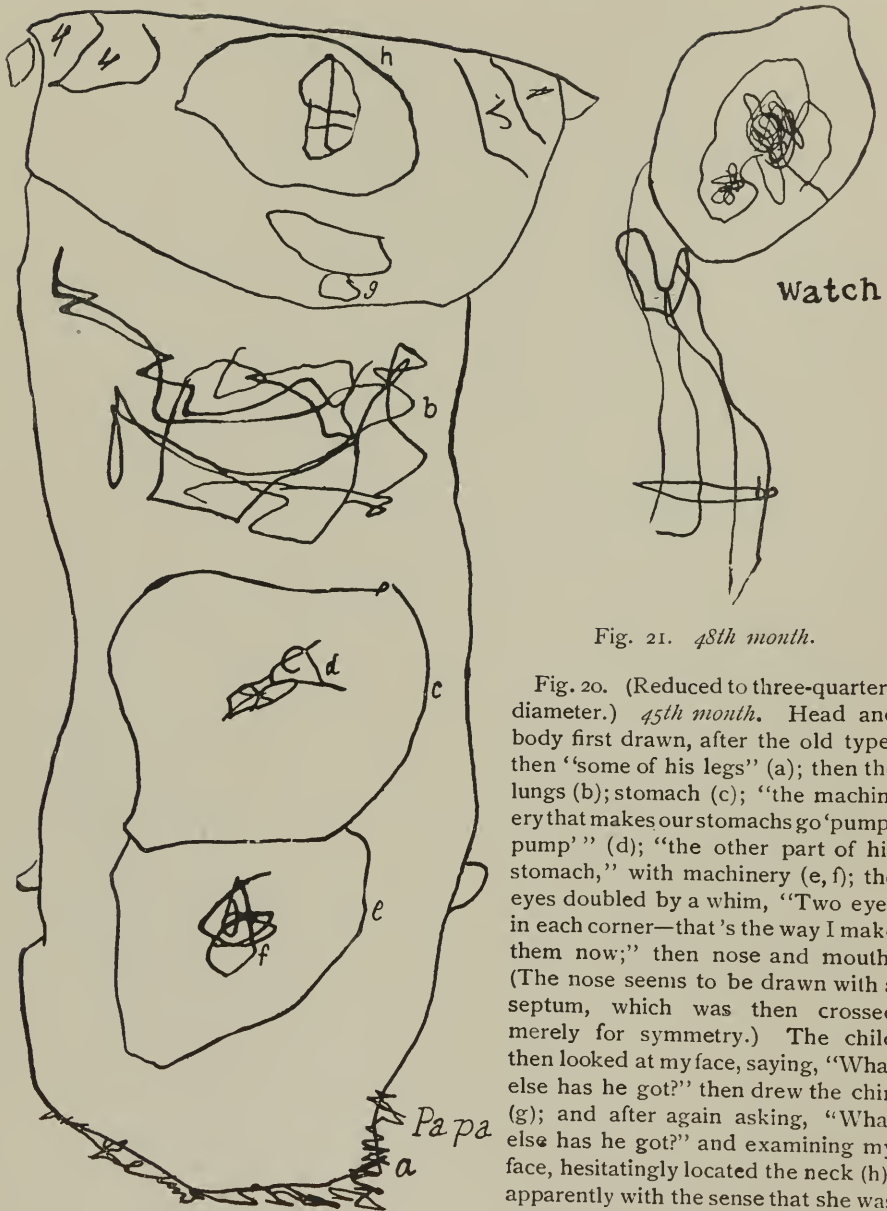


Fig. 20.

Fig. 21. 48th month.

Fig. 20. (Reduced to three-quarters diameter.) 45th month. Head and body first drawn, after the old type; then "some of his legs" (a); then the lungs (b); stomach (c); "the machinery that makes our stomachs go 'pump, pump'" (d); "the other part of his stomach," with machinery (e, f); the eyes doubled by a whim, "Two eyes in each corner—that's the way I make them now;" then nose and mouth. (The nose seems to be drawn with a septum, which was then crossed merely for symmetry.) The child then looked at my face, saying, "What else has he got?" then drew the chin (g); and after again asking, "What else has he got?" and examining my face, hesitatingly located the neck (h), apparently with the sense that she was looking *down* at it from the top of the head.

"This is the watch; this is the hand, — that goes round *this* way," representing with a curve springing from the hand the *motion* around the face; "this is the part at the side [the ring]; and this is the chain." Next day five other pictures were drawn, of which I give four (Fig. 22). The increase in logical purpose — complexity



Fig. 22. (Reduced one-half diameter.) *48th month.* The brevity of the bodies is due to limitation of paper, the first attention having been given to the head. The doubled outline of the first head was made merely for the pleasure of carrying the line round again. In the "house" the arrangement of the door and windows, and the panes, are probably conventional, as a few houses had been drawn for her; the tabs on the corners are "only to look pretty," but may be an unconscious reminiscence of chimneys.

of design — is evident, but detail has decreased, and broad outline leads more than ever. She was asked to draw, but only one subject, the “papa,” was suggested.

Now by way of generalizations up to the fifth year : —

1. The first drawing (geometric) was imitation of another's *act*, rather than copy of another's drawing. The first pictorial drawing was suggested by accidental resemblance stumbled upon in scribbling.

2. The making of forms of beauty was decidedly later and — at least until the child was nearly four years old — less interesting than the representation of objects ; yet a rudiment of it appears very early in the scribbling, and the development was to some extent parallel. Designing, however, was a good deal stimulated, while pictorial drawing was not.

3. Copying another's drawing began all but simultaneously with the first attempt to draw at all, which was from memory. The first reference to an object as a copy was in the dissatisfied look at her own hands (Fig. 5, c.), in the twenty-eighth month; but the only copying of nature for the whole picture was in the instance of the violet and hyacinth.

4. She was distinctly discouraged from time to time by her inability to make her drawing like her mental image ; but how far this, or how far variations of interest, were the cause of the long intervals of weeks or months between brief periods of drawing, I cannot say. She had not the stimulus of imitation.¹

¹A special interest seemed to me to attach to the fact that my niece's drawings were with few exceptions independent of stimulus or suggestion of any sort. We avoided drawing for her, on purpose to see what spontaneous development would take place; she saw no drawing by other children; we did not criticize or suggest when she did draw. I think that every suggestion received by her in the four years, is noted above. This makes it, to my mind, a matter worth noting that her rendering of the human figure is so widely different in general type from that which is used by the other children, in this and other records. So in her second type of flowers, and in many of her attempts at animals, the method seems to be absolutely original.

Whether the decided inferiority in spirit and vigor, and in interest in drawing, is due to the same absence of imitation, or is an individual deficiency, I cannot say. But the record of the next two years seems worth noticing briefly in connection with the question:—

During the fifth year, the child had no period of interest in drawing; but

suddenly, when five years and three months old, she became excited about living with aunty to go to college, said she was going to draw the house we should build, and produced the picture, or plan, of a three-storied house in Fig. 23, (whose generic resemblance to Susy's plan in "An Old Maid's Paradise" is obvious). She had never seen such a drawing, and the method seems to be purely original. The perspective was exceedingly confusing, as the treatment of doors and stairs shows; chairs are placed about the floor as in a flat projection, while in the same room a table is drawn upright. A distinctly symbolic treatment appears for the first time in the chairs; and in the flower pots, the first conventionalizing tendency, — this, I am quite sure, not original, but the single thing taught by a playmate. The child was highly satisfied with her work, and for several days was much interested in drawing similar plans.



Fig. 23. (Reduced to three-fourths diameter.) (a). 6th month. Plan of a house: 1, 1, chairs; 2, 2, tables with flower pots and other articles; 3, 3, doors, one of them leading to stairs; 4, 5, 5, windows; 6, bed.

(b). 7th month. Europa carried off by the white bull: 1, the bull; 2, Europa; 3, Crete; 4, 4, 4, other islands; the surrounding scribbling represents the sea. (See p. 28, note.)

5. I never saw any disposition to make the drawing a symbol instead of a representation; though it was the rule that the drawing represented *idea* and the class, rather than the individual. Thus in the portrait of her father there is no attempt at individual traits, — she simply has a type for man in general, — not even varied for women and children. See also the hair on her father's head (Fig. 14); he is in fact conspicuously bald. The drawing of stomachs and lungs, of feet within the shoes, shows that she drew from an *idea*, rather than from a visual image. This drawing of invisible portions is, I think, common with children.

6. There is no doubt of the disposition to conventionalize, in so far as expressed under the preceding head, but no farther. Large outlines predominate, and the same figure answers for a whole class.

During the rest of the sixth year, she scarcely drew at all. She had no playmate that drew, and no stimulus of any sort. During the latter half of the year, she liked to fill her letters with rude stars, suns, and moons, but they were only rough imitations of conventional figures she had seen. When she was just six, I told her to draw an illustration to the story she was reading, and she produced Fig. 23, b, — a drawing consisting mainly of mere scribble, and symbols instead of pictorial representation, decidedly inferior to the attempts of the fourth year. Yet she had, with about three months' teaching, attained a fair skill in writing, as may be seen. (See p. 27.)

I now began daily to require a drawing, illustrating a story: but the half-dozen thus secured were even feebler than the first, and the child disliked the effort. Just then a playmate who attended school began to draw with her, and introduced her to the representation of the human figure current among the little girls at school. My niece at once accepted this, with new interest, and for a few weeks turned out abundant copies of men, women, and flowers, all on the same pattern, without reference to nature. A "Papa and Mamma," *e. g.*, resembles Fig. 36, drawn two years before by the other Ruth, almost to identity (even to the flowers in the hat), — though there was absolutely no connection in origin between the two drawings.

A few weeks later, during the second month of the seventh year, getting sight of Bayard's drawings (Figs. 37-48) as I arranged them for print, my niece and her playmate were seized with a new zeal; and dropping the conventional figures brought from the local school, they launched into a profusion of free imitations of Bayard's work, with additions (sometimes clever ones) of their own, and repeated appeals to nature. My niece made more advance in one afternoon than in two years before, and thus suddenly came to a stage of progress somewhat similar to that reached much earlier by the children with older brothers and sisters.

7. Even where detail is more attended to than general outline, the detail is itself generalized and conventionalized; yet I did not find types of conventionalizing rigid.

8. Up to the fourth year, I should say form was more interesting than color; certainly form led in the second, color in the fourth; but as to the third, I did not see conclusive evidence, nor can I tell by what stages the transition occurred, — it was imperceptible.

RUTH.

BY KATHERINE WOOLSEY SLACK.

RUTH was about three years of age when she first began to draw with a purpose. Previous to that time she had watched her sister draw, but paid little attention to it. She seemed perfectly satisfied herself to scratch the paper with her pencil in an aimless way, and if asked what she was making would reply, "Nothing." She did not begin to draw with a purpose until I asked her to make me a nice picture. She said that she would draw me a picture of "papa," and in a few moments produced the sketch in Fig. 24. During the twenty-four months following this time, I have tried each month to secure one or more of Ruth's drawings intended to represent her father. I give a selected series of these drawings, (Figs. 24-36).¹

Her earliest efforts in drawing were figures of living beings. She seemed most interested in drawing the different members of the family, especially her father; but drawings of animals — horses, dogs, cats, foxes, etc. — also occupied her attention.

During the last half of her fifth year, she has been more interested in drawing houses, churches, and boats. She never has tried to draw forms of beauty. When asked to draw something very pretty, she would draw a man or a house.

When she began to draw, she showed no disposition to imitate her sister's drawing, but seemed satisfied with her own efforts, explaining to her own satisfaction each and every line in her drawings. During the fifth year, however, she is very apt to imitate her sister's drawings and is rarely satisfied with her own work.

During her fourth year, Ruth first made a distinct attempt to represent an object before her. She made the attempt at her mother's suggestion, and was thoroughly disgusted with the result, not without cause. She never of her own accord tries to draw from

¹Figs. 29, 30 are reduced to three-fourths diameter. The rest of the series are the original size.



Fig. 24. 3 years.

(31)

Fig 25

3 yrs. 2 mos.

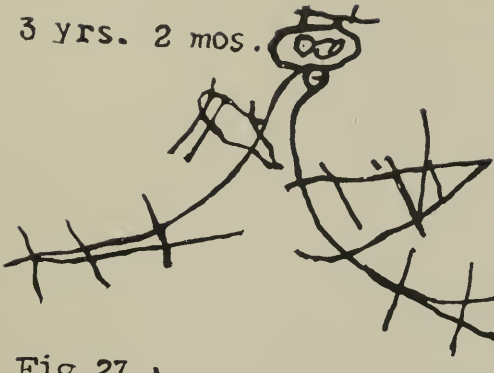


Fig. 26

3 yrs., 3 mos.

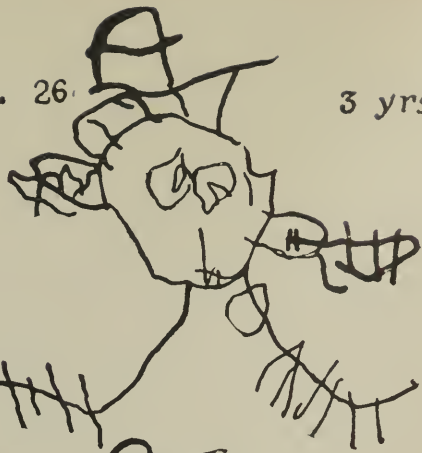


Fig. 27

3 yrs. 4 mos.

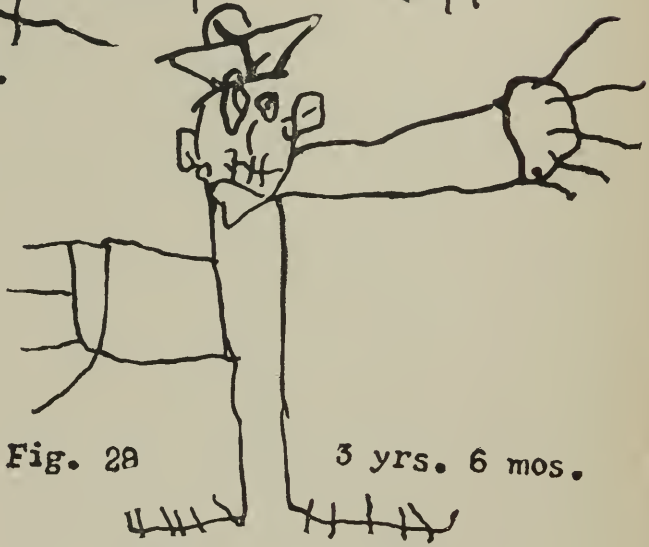
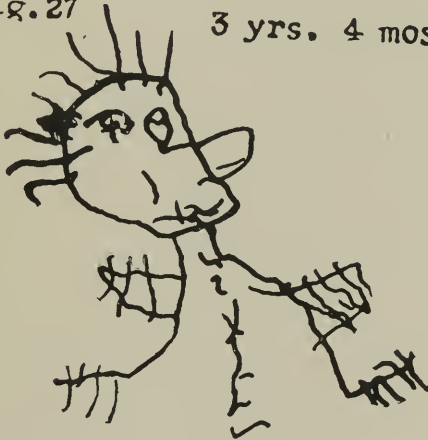


Fig. 28

3 yrs. 6 mos.

Fig. 30

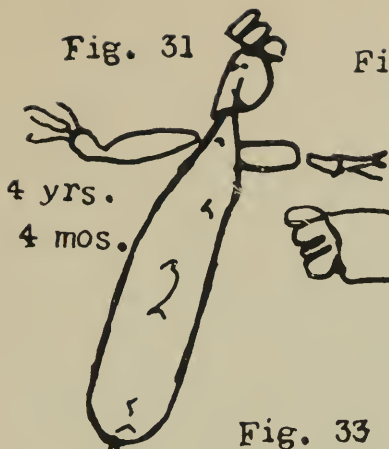
4 yrs. 2 mos.



Fig. 29 4 yrs.

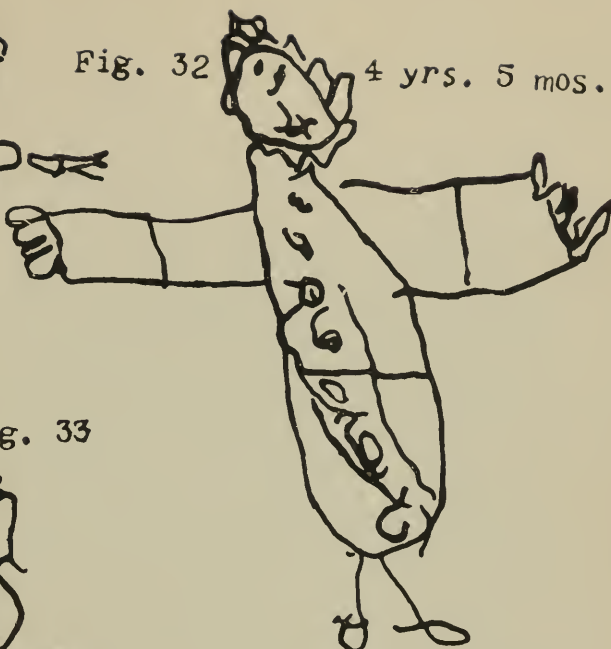


Fig. 31



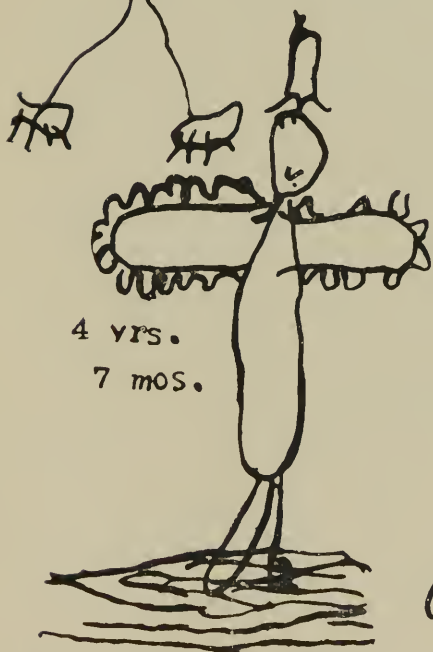
4 yrs.
4 mos.

Fig. 32



4 yrs. 5 mos.

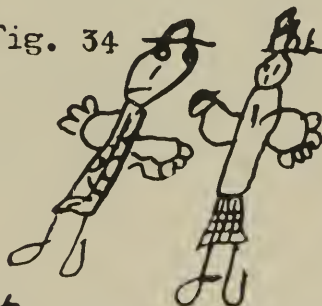
Fig. 33



4 yrs.
7 mos.

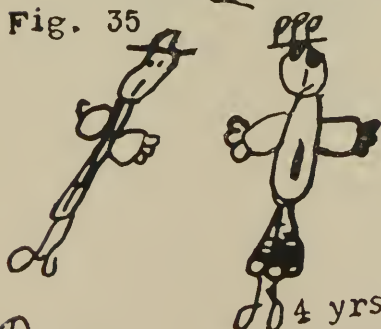
4 yrs. 9 mos

Fig. 34



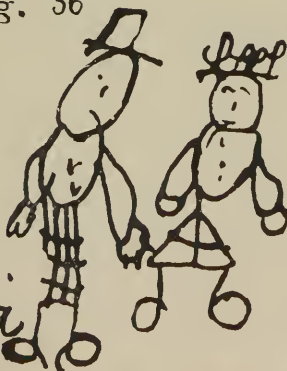
Papa mama

Fig. 35



Papa
Good P

Fig. 36



4 yrs. 11 mos.

5 yrs.

Papamama

nature, and if asked to do so, does it very unwillingly. She prefers to represent her own ideas of things, rather than objects as they really exist.

So far as the resemblance is concerned, all of Ruth's drawings might be taken as merely symbols, rather than an actual representation of the object: but when she intends a drawing to be merely a symbol she is apt to say, "I was just making believe that this was a house," (indicating perhaps in some corner a scratch or a zigzag line); or something of the kind. She has lately begun to use ink, and the numerous blots which have resulted from every effort, she has made to do duty for all sorts of things. For example, she made a large blot on her paper last week while trying to write a letter with ink. She immediately drew a boat above it and said that the blot was the "big ocean."

She shows greater interest in color than in form.

During the two years that she has been drawing, her interest has been fitful. She would be interested in drawing for a week perhaps at a time, every day taking it up several times; then again would not draw unless urged to do so, for two or three weeks at a time. At the present time, the beginning of her sixth year, she is more interested in writing than in drawing, and during the past five weeks has only drawn when urged to do so.

BAYARD.

BY ELEANOR GIBBONS SHARP.

BAYARD has always evinced a remarkable fondness for horses, pointing them out in pictures and on the street, long before he could call them by name. Among his toys, the horse has ever been his favorite, and his first attempts at drawing were horses; therefore I have confined my selection almost entirely to that one subject, covering a period of fourteen months.

Between the ages of twenty-five and twenty-nine months, Bayard insisted upon my drawing horses for him every time he saw a pencil. I was obliged to go through the same formula always, — a horse, man on his back, reins, whip, and drink of water for the horse; then another horse, man, whip, etc.

He drew his first horse intentionally when he was twenty-four months old, but it was lost. His next effort (Fig. 37) was four

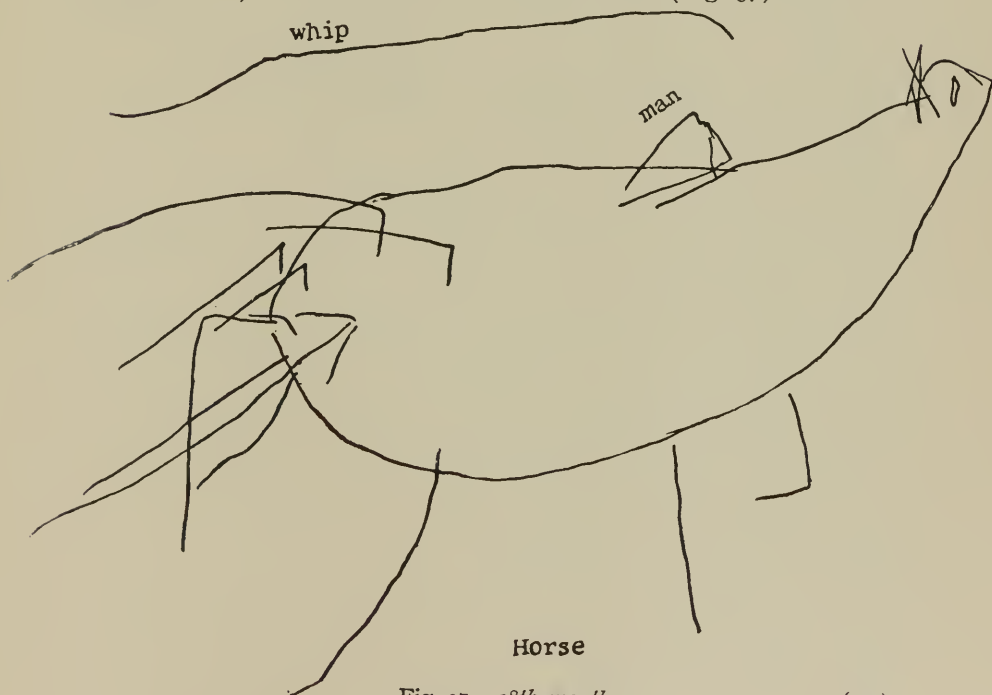


Fig. 37. 28th month.

months later. When asked to draw a man on his back, he replied, "I tan't," but produced the irregular triangle.

I can not recall that he drew anything more until the thirty-seventh month, when he brought me Fig. 38, (a pony).

In the fortieth month he drew Fig. 39 for "'Fessor B'own," and from that time (up to the age of four years and two months) he has

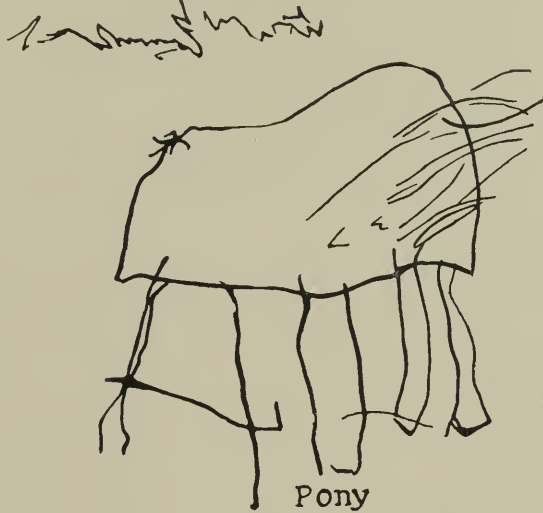


Fig. 38. (Not reduced.)¹ 37th month. The markings in the upper left-hand corner are the pony's name, "Jack."

been most indefatigable with his pencil. He has often spent two and three hours at a time drawing steadily, and turning off work so rapidly that my stock of waste papers and wrapping paper as well was soon exhausted, and pencils had to be purchased by the dozen. Scarcely a day passes that he does not produce something. I find that the sizes of his animals are regulated by the sizes of his papers, and have learned to cut the papers accordingly.

He holds pencil or chalk in either hand, drawing almost as readily with the left as with the right.

At first his subjects were always horses. Then followed trains, horses with riders, wagons, representations of members of the family, cranes, ducks, goats, wolves, and other animals, but never

¹Figs. 37-48 are all reduced to three-fourths diameter, except where otherwise noted with the figure.

to the exclusion of the horse. In the latter half of the fourth year, the variety increased: trees, houses, men, boats, flags, birds, the cow jumping over the moon, are added; horses are drawn running, standing, or sitting. In the forty-fourth month he brought me forty "photographs of me when I was a baby," drawn on as many bits of paper. Another drawing of this month represents a nurse pushing a baby carriage. After going to the circus, he drew Japanese men on a tight rope, a horse going through a ring, riders standing, and a camel (forty-seventh month); a few days later, eight pussy-cats in a row. He has written a letter to Santa Claus (fifty-first month) illustrating it with pictures of what he wants, a rocking-

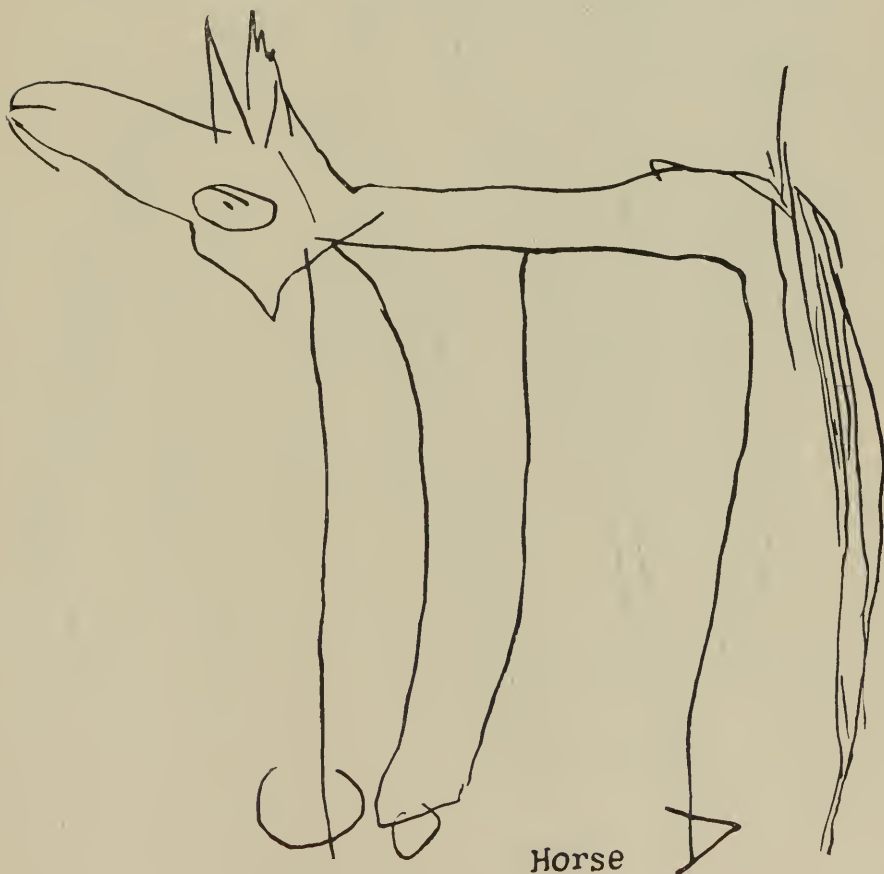
**Horse**

Fig. 39. (Not reduced.) 40th month.

horse, garden tools, tea-set, milk wagon, and building blocks. Sometimes he tries the grotesque, — a goose smoking a pipe, for instance.

His first man consisted of a head, to which limbs were attached; then followed a substantial body, with details of features, sometimes in profile, and later adorned with a hat. Fingers are seldom wanting on the hands, and his horses' ears and hoofs are often exaggerated. Wolves are known by their open mouths and great teeth, goats by their horns. Reindeer have branching horns.

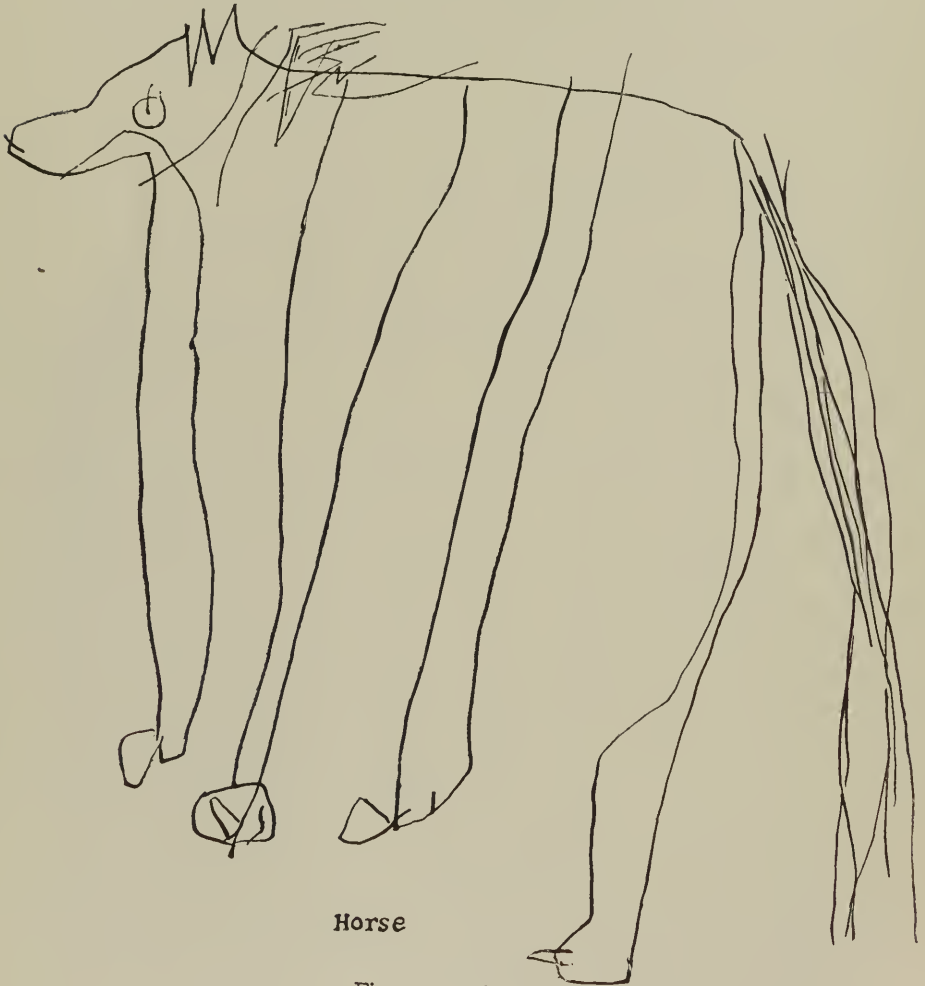


Fig. 40. 40th month.

"Two ponies and shaft of wagon; but you can't see the wagon."

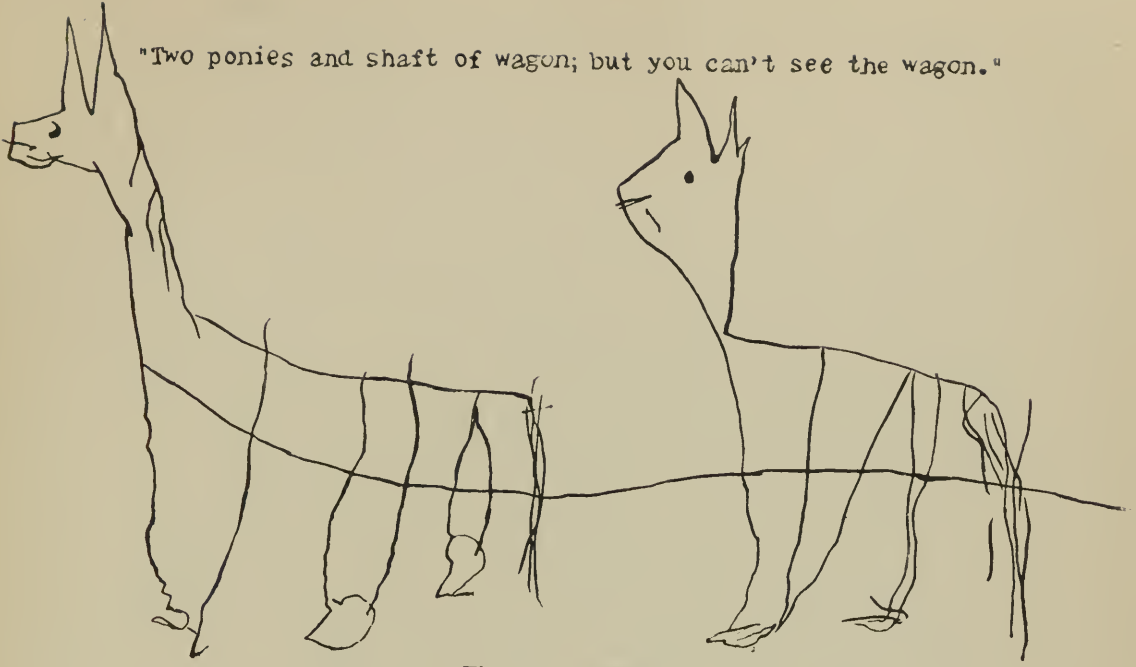
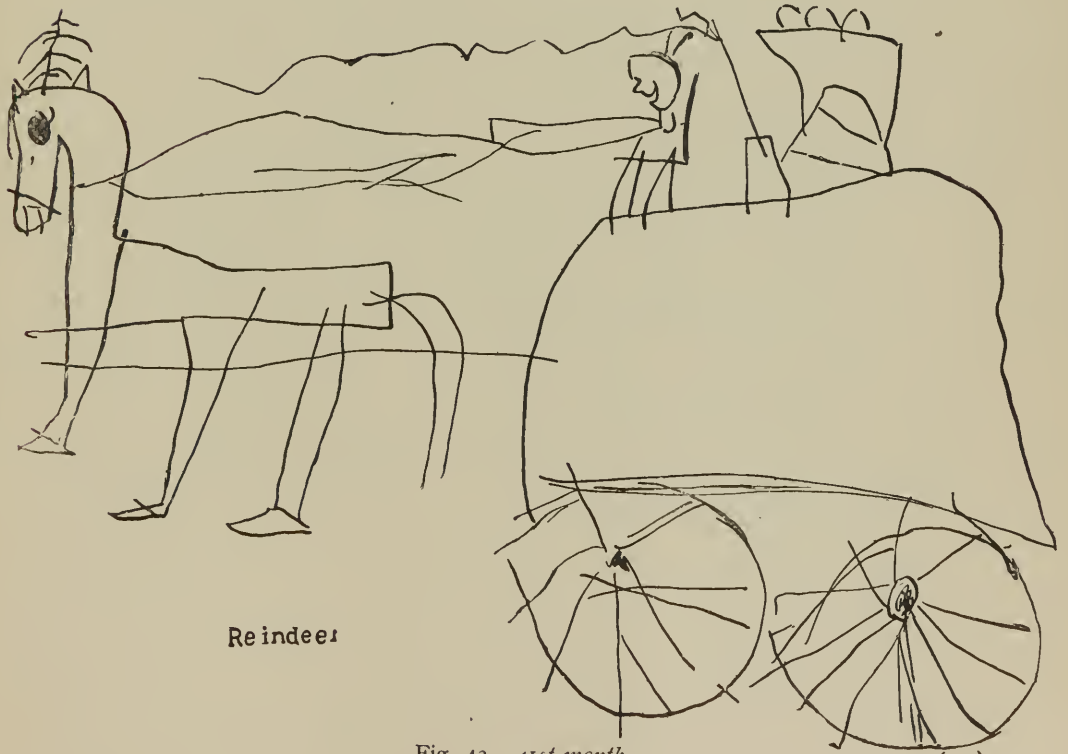


Fig. 41. 41st month.



Reindeer

Fig. 42. 41st month.



Cow

Fig. 43. 42d month. (From a picture.)



Wolves

Fig. 44. 42d month.

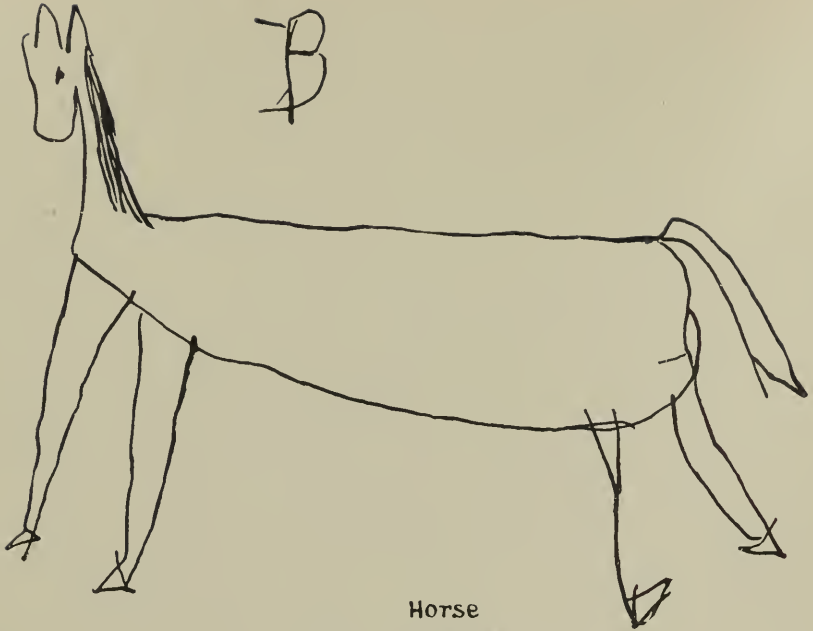


Horse

Fig. 45. 42d month.



Fig. 46. (Reduced to one-half diameter.) 42d month. Goat-cart. (41)



Horse

Fig. 47. 42d month.



"Me on my horse"

Fig. 48. 42d month.

At three years and a half, he sometimes ostensibly drew from objects, or attempted to follow a copy. After he was four, this disposition increased. In the fiftieth month, he critically examined our Thanksgiving turkey, then drew him on the blackboard, not omitting the dangler over the bill. In the fifty-first month, he was about to draw a bee, and inquired if it had two things coming out of its head like a fly, and if we could see its eyes. When he brought it to me, I asked where its legs were. "Can you see bees' wegs when they are f'ying?" he asked; "you can't see a bird's wegs when it is f'ying." Still he oftener studies pictures than the object; the pictures in his own little primer particularly; and his turkeys always have their tails down, as they are represented there. He was asking about birds' tails one day, and I said sometimes the turkey's tail stood up. "It is turned down in my book," he replied.

My notes indicate that Bayard was never more attracted to colored pictures than to black and white. The subject was always of more interest than the color. Sometimes he fills in his drawings with color, but on account of his failure to confine the color and water to the drawings, I do not encourage it, especially as chalk and pencil are satisfying to him.

His drawings always represent some object, real or imaginary, never a mere form of beauty: nor are they ever merely symbols.

No doubt he gets suggestions from his older brothers¹; but they had long passed the age of outline human figures, when Bayard made his first one.

¹Of the older brothers, S. draws almost daily, but has made little progress since he was seven years old; he indulges in the grotesque, and never makes a careful or accurate drawing. Bayard admires his work, and says, "If I could only draw as well as S.!" H. never draws except to illustrate a composition, or when drawing is required as school work, but is painstaking, and makes very creditable pen-and-ink sketches (copies). E. draws little, and his work shows little or no originality.

CARROLL.

BY LULU MEDBURY CHAPMAN.

As drawing has always been a favorite indoor amusement of the older children, Carroll, being the third child, saw a great deal done before he began for himself. Besides this, I often drew to amuse him. Yet he began to draw very late, and then at my suggestion. Before he began to draw with a purpose, he had done a very little aimless marking in imitation of the other children, but if given a pencil and paper usually preferred the more exciting pleasure of punching holes in the paper with the pencil.

Before the thirty-second month he made no attempt at the representation of anything. During that month he was very fond of having me print letters and draw geometrical figures for him to name, and I therefore suggested that he draw for himself. After demurring somewhat, he made very satisfactory attempts. For several days he drew a great deal, making circles, triangles, and letters, preferring the letters. Then he began to look on the circles as pictures, and named them cookies and later bumble-bees, evidently fancying a resemblance to the ground bees we had been watching at work. Very soon also large, irregular, closed figures called boats appeared. These were drawn in imitation of his brother's pictures and were perfectly unrecognizable.

At this time he drew indifferently with right or left hand, the stroke being slightly firmer with the right. The motion from right to left seemed much easier for him than that from left to right.

For two months this was the extent of his drawing. In the thirty-fourth month he added ladders, (which seemed at first an enlargement of a capital H, the figure then suggesting the object); and long oblongs for chimneys, suggested to him by the cable-house chimneys, which he can see from the window, and which were of great interest to him as "places where the sky-man makes clouds." As he drew on a blackboard or slate, unfortunately no specimens of these early drawings have been preserved.

A very long interval, nine months, now elapsed, during which he could not be tempted to draw. In the forty-third month he began voluntarily to draw human figures. The first of these, Fig. 49,

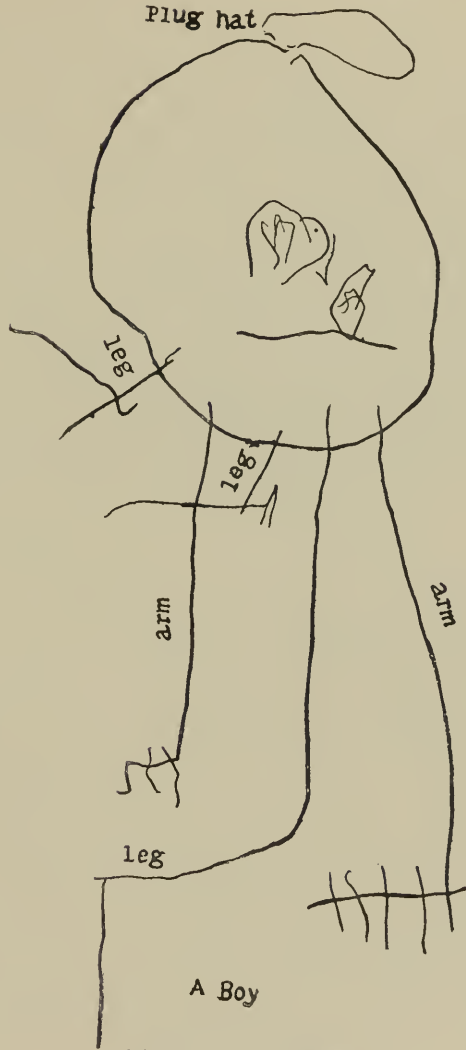


Fig. 49.¹ 43d month.

consisted of a head with the features and three legs. The arms were added after I had asked about them; and fingers were made without suggestion. As he had often watched me draw boys, the idea of enclosing the features in a circle for the head was probably derived from that. The pupil of the eye was an essential feature, and however defective the man might be in other respects this was

¹Figs. 49-62 are all reduced to three-fourths diameter, except where otherwise noted with the figure.

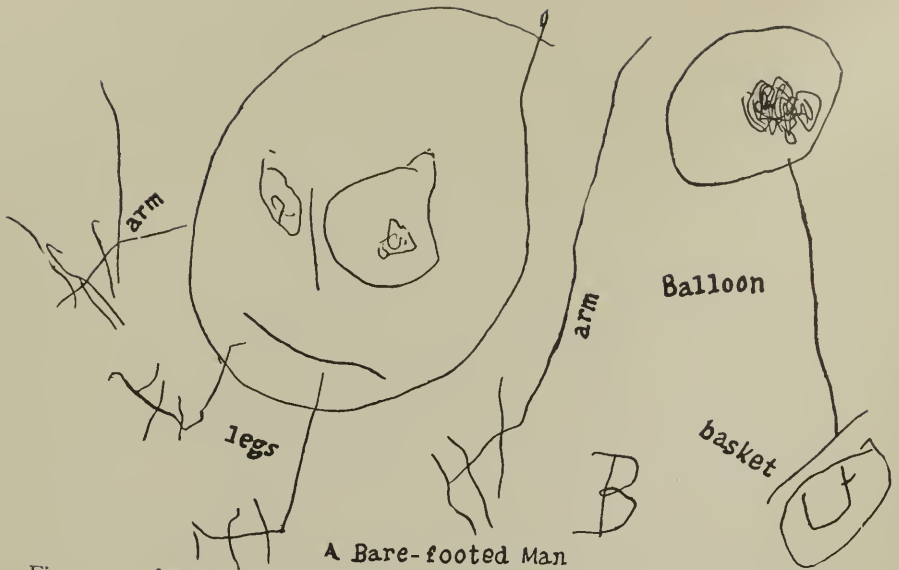


Fig. 50. 43d month. The child afterward said that the figure he had called the basket of the balloon was "a one-eyed farmer sending up the balloon."

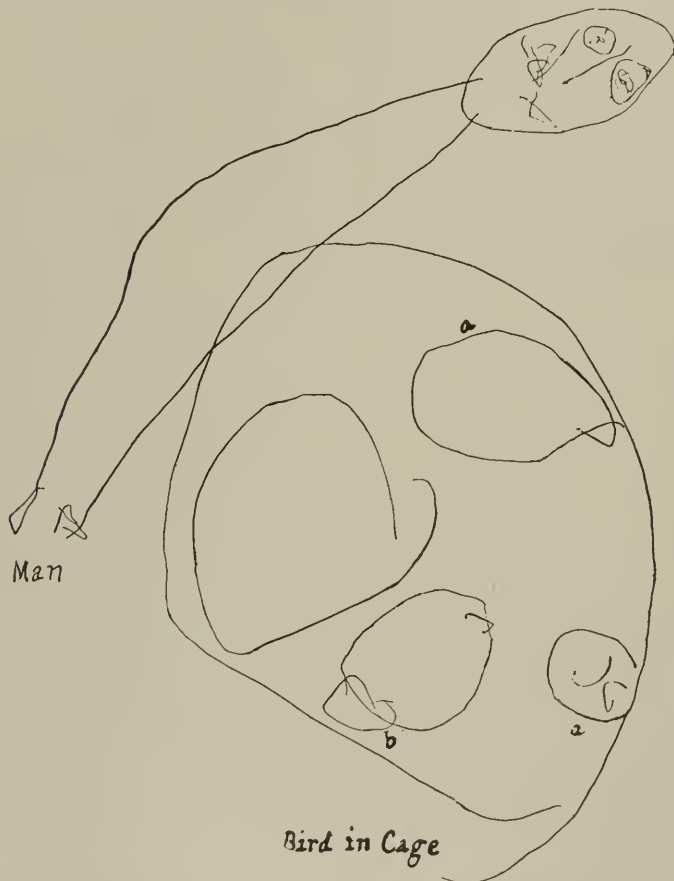


Fig. 51. (Reduced one-half diameter.) 44th month. The "Man" was described as "with a mustache and bald." The bird's head at (b), the tail at (c); a, a, a are seed-cups.

never missing. Sometimes the arms were entirely detached, as in Fig. 50. The placing of the arms was a source of much annoyance to him, as he knew it was not right to attach them to the head; yet the idea of making a trunk did not suggest itself even after I had asked, "Where are your own arms fastened on?" As I did not wish him to have direct assistance, I made no further suggestion about the body.

A shorter interval again occurred — about four weeks — in which nothing was produced, when in the forty-fourth month he seated himself before the bird-cage and drew his first object from nature, — the bird and the cage in Fig. 51. He expressed great dissatisfaction with this. A month later he drew, this time at suggestion, a portrait of his brother (Fig. 52). He looked carefully at

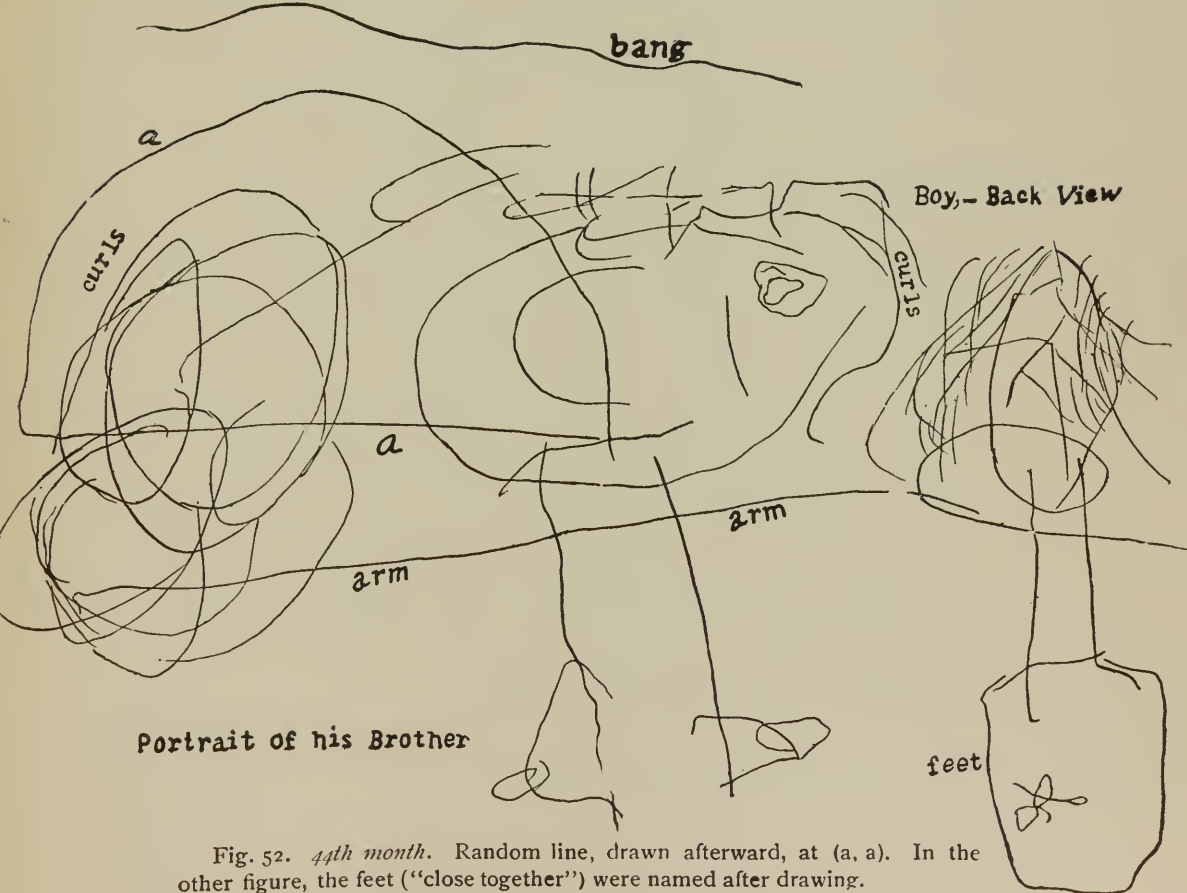


Fig. 52. 44th month. Random line, drawn afterward, at (a, a). In the other figure, the feet ("close together") were named after drawing.

each feature as he drew it, trying to make an exact representation, and leaving out the trunk got over the difficulty of attaching the arms to the head by drawing them in one straight line, crossing the legs.

The omission of the trunk was the stranger that in cutting paper dolls (an outline of one of which is given in Fig. 53) he made

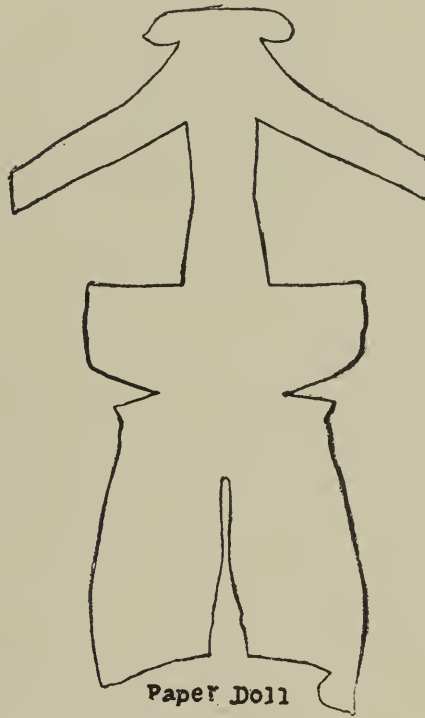


Fig. 53. 44th month.

a body with an absurd protuberance for the stomach. From this time he frequently looked at his father when drawing men. However, the arms and the legs still remained straight lines and no trunks were made, until suddenly at the beginning of the forty-sixth month he began to draw a totally different style of man (Fig. 54), with a trunk, big baggy legs and arms, the palm of the hand a circle surrounded with baggy or circular fingers. Large ears were also added. The reason of this sudden change I could not find out,

as no one in the house but myself drew human figures and I had not done so for some time preceding this.

Just before this, in the forty-fifth month, he began to draw animals. His first trial, Fig. 55 (p. 50), represents a dog sitting on a hat. The resemblance of the dog to his early man is striking. With



Fig. 54. *46th month.* The letters above the drawing are the child's nickname, "Bonny," or "Bunny," often appended in later drawings.

the exception of a very conventional pig, which he was taught to draw, he produced but few figures of animals.

Beginning with the forty-sixth month was a period of great interest in drawing, lasting for nearly three months. A very large blackboard had been made on the wall, and the large surface it offered was a great inducement to him to draw; so he often drew for hours with unflagging interest. He immediately began to

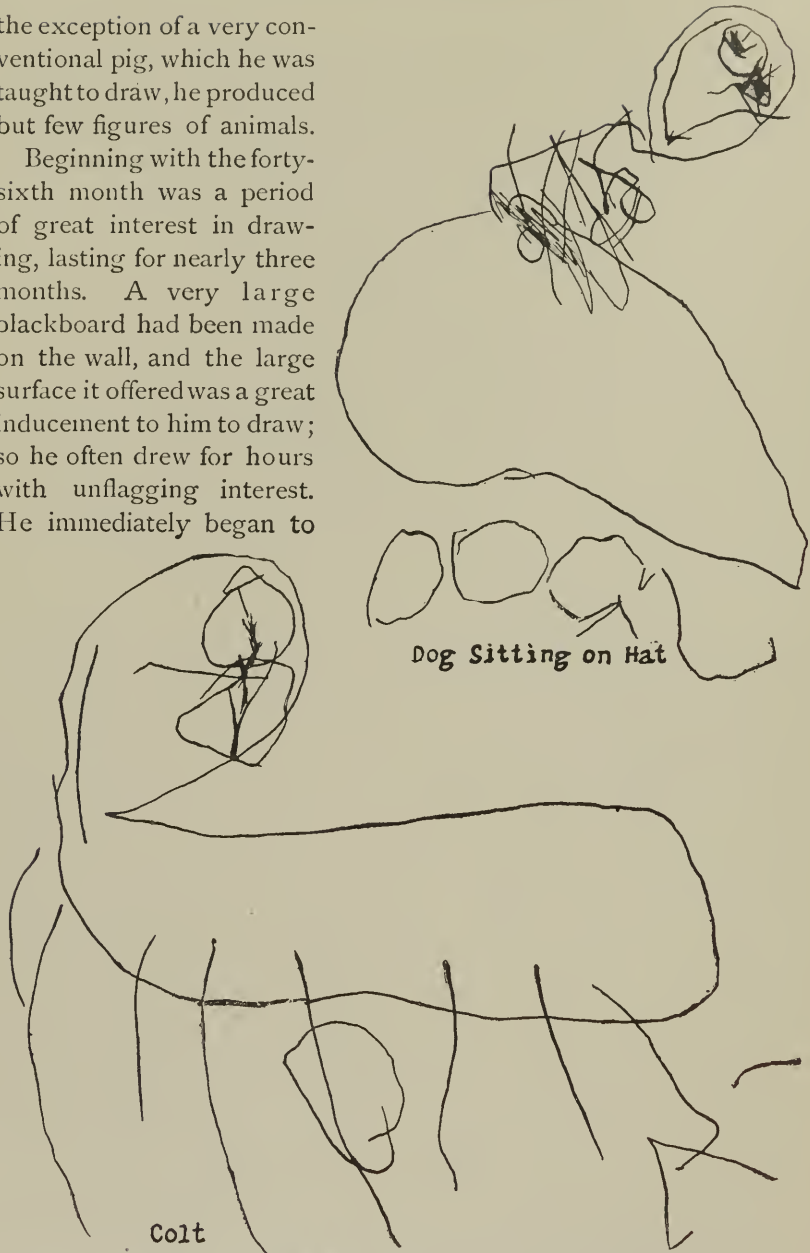
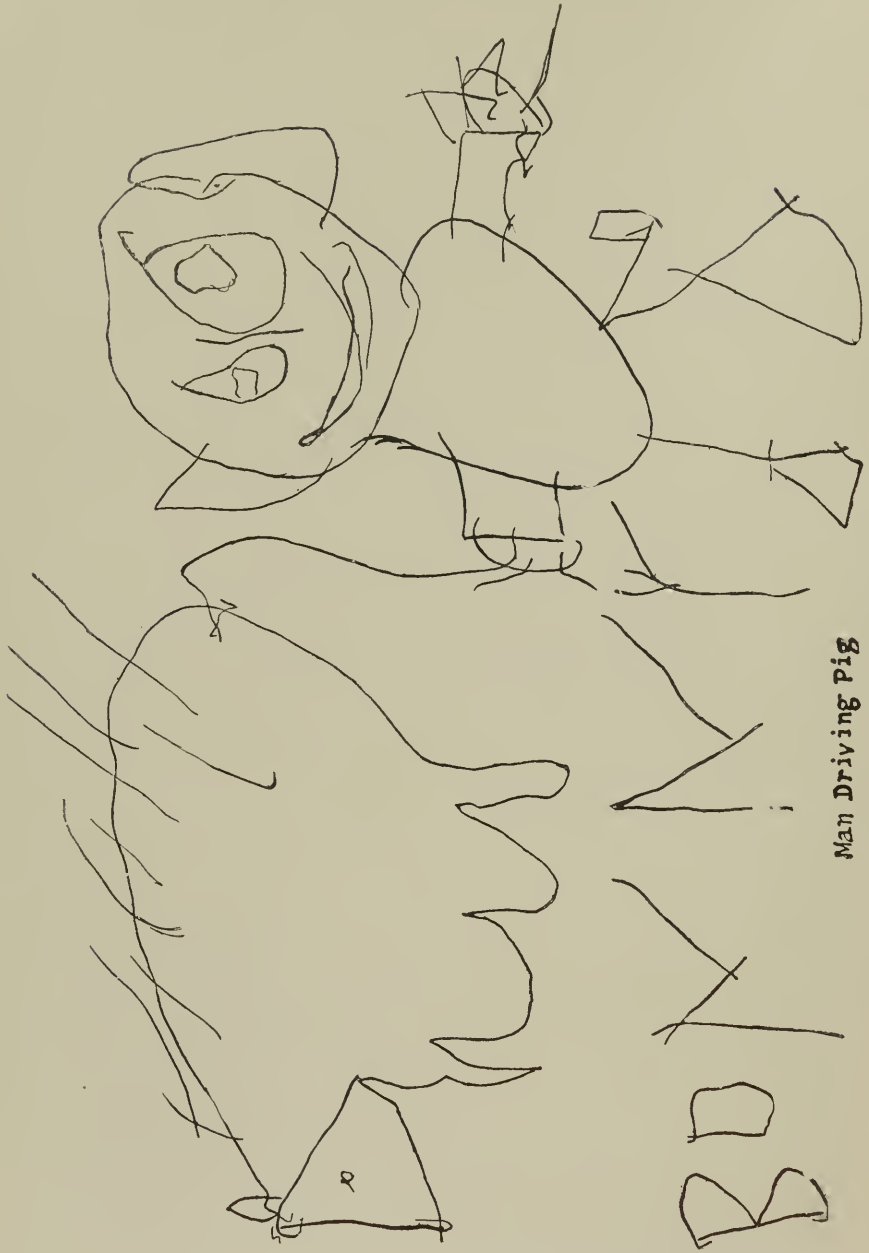


Fig. 55. 45th month. First attempts at animals.

draw groups and scenes, and introduced ground and sky into his pictures in imitation of his brother. He also began to draw all kinds of objects, some copied from his brother's drawings,—boats, forts, and firearms,—and some of familiar objects about the house, chairs and tables; and smaller ones, especially button-hooks and coffee-mills. Occasionally he would hold a small object in his hand and attempt to draw from it; but as the imperfection of his copy was so evident, he was greatly dissatisfied, and usually gave it up. Still the human figure was the favorite subject. During this period he would often stand before the board, and after he had drawn the picture would look down on his own figure, moving his arms and legs and comparing them with the drawing. Having once drawn a man with one arm reaching quite to the ground, he looked at it with disapproval, then standing erect put his arms at his side and looked down to make sure of their length. He then said, "Arms are not like that; they do not hang to the feet."

Figs. 56–62 include drawings made during this period, mostly in the forty-seventh and forty-eighth months. A great irregularity showed itself during this time and also a carelessness in the details, so that, although he often mentioned the features as they were put in, the result was a tangled mass of lines in which nothing could be distinguished. More details were gradually added; heels and buttons on the shoes, and a collar, as in Fig. 61. Buttons on the coat were the sign of a policeman.

Sometimes the arms and the legs were again simply straight lines; but this I did not consider as a retrogression to his earlier way of drawing, but a conventionalizing of the drawing. The ears became such a prominent part of the man that (contrary to my custom) I criticized them and had them reduced. There was a great tendency to exaggerate any new feature, and when he drew animals he made as many legs as the body would admit of; also, the number of fingers was multiplied until I called attention to his own hand, after which he counted the fingers for some time. He is very critical of his work and never entirely satisfied. The proportions of the body have given him much trouble and are a source of constant complaint. Often after complaining of the irregularity of the figure he would (forty-fifth to forty-eighth month) pronounce it Japanese, and then seem satisfied.



Man Driving Pig

Fig. 56. 47th month. The pig is conventional.

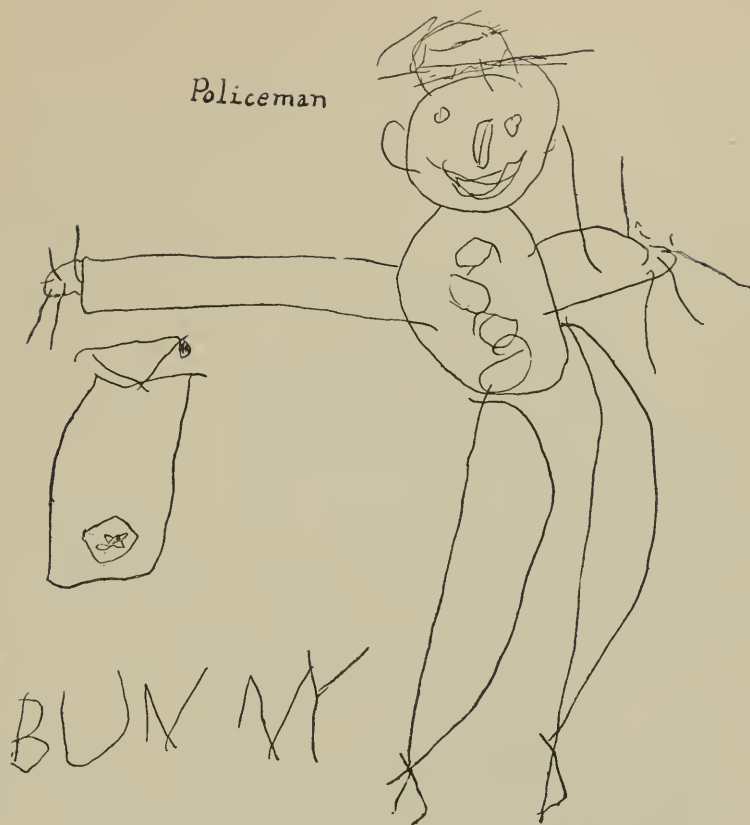


Fig. 57. (Reduced one-half diameter.) 47th month.

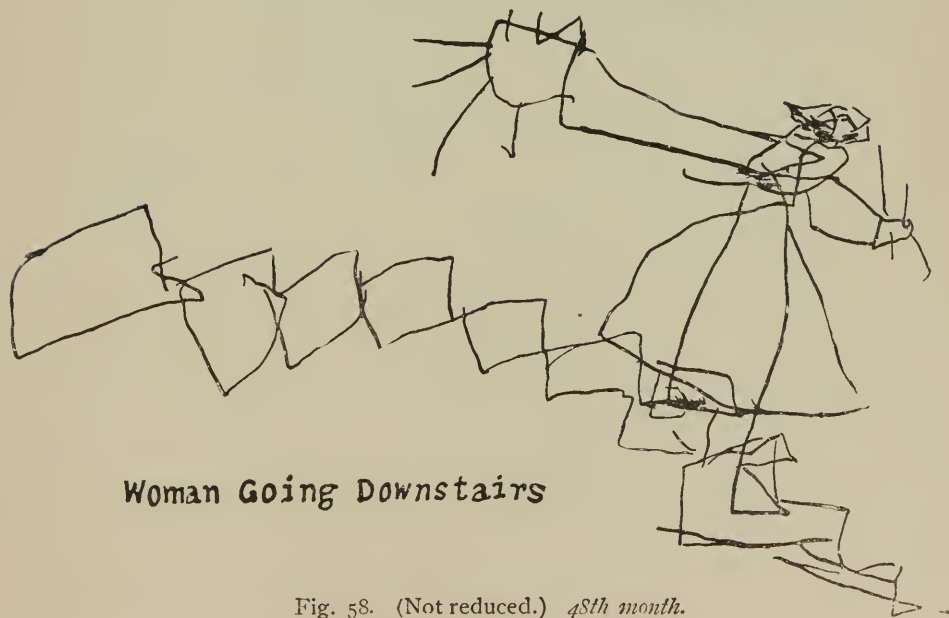


Fig. 58. (Not reduced.) 48th month.



Fig. 59. (Reduced one-half diameter.) 48th month.



(54)

Fig. 60. (Not reduced.) 48th month.

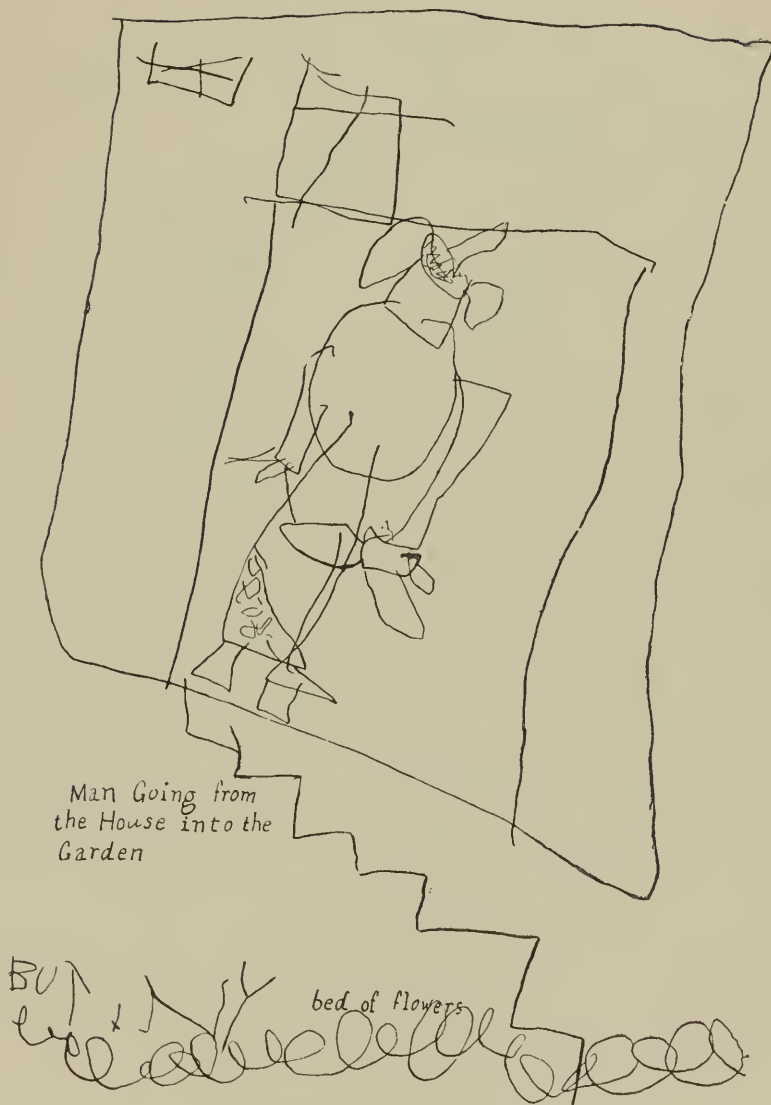


Fig 61. 4th month. (Reduced one-half diameter.)



Fig. 62. 48th month.

His first attempt to copy another's drawing was in the forty-fifth month, when he learned to draw the pigs, and then he did not copy, line for line, but aimed at the general effect.

Perhaps the only instance of making the drawing a symbol is in Fig. 63, a boat-load of men, in which the figures are "not men," he explained, "but put there to be for men."

There is since the forth-fifth month a tendency to conventionalize, as seen in the single line limbs when he can make much more



Fig. 63. (Reduced one-half diameter.) *49th month.* Here the figures in the boat are "not men, but to be for men."

natural ones with two lines. When the object is drawn on a small scale, also, as men in a boat or in a fort, the men, being in some sense not very important parts of the picture, are made in a very conventional way. Boats began by being conventional, being general imitations of L's, but are gradually growing to be intended as representations of those he has seen on the bay. After going to Sausalito, he drew the next day (forty-eighth month) a representation of a ship with many spars, to which his attention had been called. The details of the object rather than the general outline have always been heeded. In the beginning the general direction of the parts of the body was not observed, and the arms and legs hung down like a fringe from the head. The first aiming at general effect was in the forty-seventh month. An instance is the bed of flowers in Fig. 61.

There has been no time, since the first notes on the child were taken at eighteen months, when he has shown any interest in color. On the other hand, form has always interested him. Yet he has not been interested in arranging objects in a regular order, and only on one occasion has he drawn any symmetrical combination

of lines. In the middle of the forty-eighth month he drew on the blackboard a figure like this:

He drew it with considerable regularity, filling in each square separately.

I suspect this was suggested to him

by the figure of a game the children

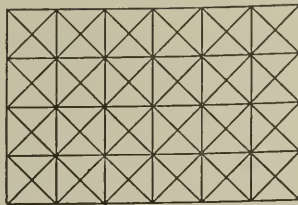
had been playing on the blackboard

the day before. Upon my asking what

he had drawn, he said, "Just lines"; but

added after a moment or two, "But it's a lion's cage." The figure

was repeated afterward several times, but always as the cage.



SUMMARY.

REVIEWING these reports, we may note the following results:—

1. All of the children referred to had seen drawings made before they began to draw for themselves. Two drew representations of living things for their first pictures. The other two drew geometrical figures first; but these were also in the nature of representations, being drawn in imitation of similar figures which they had seen others draw. It would be hard to tell, however, whether these earliest attempts were directed chiefly to the production of figures such as had been seen, or the performance of an act which the child had followed as it was performed by others. Two of the children had amused themselves with aimless marking before they produced anything that seemed to them to call for a name. I have observed in the case of other children a disposition to scribble in imitation of their elders' writing before they have made any attempt at drawing; but two or three cases have been reported to me in which the movements and the resulting markings were distinctly different when the child was "writing" from what appeared when the process was called "drawing" or "making pictures."

The pointing out of parallelisms between the doings of children and those of savages does not seem to lead us to anything of importance. Yet the resemblances are too frequent and striking to be ignored. We keep on making note of them as they appear; and it may be that the mass of such observations may one day be utilized to some better purpose than the illustration of an interesting but rather barren theory.

One of these parallelisms is suggested at this point in our inquiry. According to a well-known theory of the origin of drawing, chance resemblances were first seized upon, and in endeavoring to heighten these resemblances the savage made his beginnings in the art of representation. Mr. Henry Balfour, curator of the Ethnographical Department of the University Museum, Oxford, writes as follows:—

"We must suppose then that the birth of realistic art took place when man's attention was first drawn to the accidental resemblance of some natural or artificial object to some well-known form, such as that of some familiar animal. . . . The next step, viz., the application of artificial means to increase the effect of this accidental resemblance, followed quickly upon the first appreciation of it. The addition, for example, of an eye to an object whose form already accidentally suggests an animal's head, or a few touches added to such projecting portions as resemble legs, are simple and obvious improvements, involving but slight intellectual efforts."¹

It was apparently in response to a closely related instinct, that Carroll made his beginnings in pictorial drawing by way of the giving of names to his crude, geometric figures; and Ruth W. began by naming a "mouse" made in the course of aimless scribbling. So also, Ruth W. showed at a later period a marked interest in seeking chance resemblances in pencil scratches and torn bits of paper; the other Ruth was quick to employ the blots resulting from her unskillful use of a pen, to represent with suitable variations certain objects which she had seen; and Carroll made his first symmetrical design pictorial by calling it a lion's cage and reproducing it as such. I have repeatedly observed a like tendency on the part of other children.² At times it manifests itself in the way of promptly changing the "name" of a picture that is not very successful as a representation, and then altering the drawing to conform to the new designation.

But the differences between these children's work and the early art of savage tribes are no less striking than the resemblances. Their civilized environment makes itself distinctly felt. There is no such superstition attaching to their pictures as that described by M. Lazar Popoff;³ nor are representations of the human figure at all rare or exceptional in their productions. On the other hand, the absence of drawings of plants is well-nigh as characteristic here as M. Popoff finds it in the oldest examples of savage art, — yet I suspect for somewhat different reasons.

¹The Evolution of Decorative Art. London, Rivington, Percival & Co., 1893; pp. 79 and 80.

²Compare *Sully*. Studies of Childhood, p. 333.

³Article on the Origin of Art, in the *Popular Science Monthly*, Vol. 44, p. 827 (April, 1894).

All of these children plainly began their pictorial representation with the use of the line, rather than with light and shade. No great importance can be attached to this fact, however, for the reason that they had seen only line drawings made, and the implement most generally at their disposal was a pencil.¹ The two facts that would seem most worthy of note in connection with these earliest beginnings, are those already referred to: First, that they were due in large measure to the example of older persons whom the children had seen making pictures; and secondly, that they were largely influenced by the interest of the children in observing resemblances. At the outset there appeared no imperative inborn demand for self-expression through drawing. The demand for such self-expression, however, increased rapidly when once a beginning had been made, and combined readily with the childish delight in "playing" that this is that.

2. It seems clear that the first drawing of all of these children was pictorial rather than decorative in character. The idea of making symmetrical figures for the mere sake of beauty was a later development, if it appeared at all. In this respect again these little ones seem to have followed in the footsteps of primitive man. "I shall be strictly within the circle of ideas of recent anthropologic science," says Mr. Wm. H. Goodyear, "when I say that an imitative origin of some kind is to be assumed in general for primitive patterns, as opposed to the theory of an off-hand manufacture of geometric design."² Or, as Mr. John Collier has expressed it, "The origin of decorative art is therefore to be found in the imitation of nature, and it is probable that all ornaments, no matter how conventionalized, could, with adequate knowledge, be traced back by a series of minute modifications to some natural object."³

¹There is, doubtless, a pedagogical significance in the fact that most children begin with the line and under similar influences. For an interesting discussion of the question of line drawing *versus* light and shade, see the interesting paper by Miss Josephine C. Locke: With What Should Drawing Begin? Proceedings of the International Congress of Education, New York, 1894, p. 491.

²Article on The Lotiform Origin of the Ionic Capital, in the *Architectural Record*, Vol. III., No. 2, p. 139. The opposite view is presented, but not defended, by Mr. W. J. Stillman, in an article entitled "The Revival of Art," in the *Atlantic Monthly*, Vol. LXX., p. 248.

³A Primer of Art. London: Macmillan & Co., 1882; p. 10.

The children with whom these reports have to do did not, however, within the time covered by the reports, pass through any clearly-marked progress from pictorial to decorative drawing. When one drew symmetrical forms merely for the sake of beauty, it was in response to the influence of older persons. When Ruth was asked to draw "something very pretty," she would draw a man or a house. It is a similar observation of kindergarten teachers that their little pupils at the start take more readily to the making of "forms of life" than of "forms of beauty."

Carroll's apparent confusion when asked what his first symmetrical figure was, may be of considerable significance. The idea of a beautiful thing is readily acquired by the little ones, though taking on some crude and fantastic forms at the outset. But the idea of a thing made simply for the sake of beauty involves a kind of abstraction. I may illustrate this difficulty from my own recollections. I distinctly recall an incident in point, which occurred, as nearly as I can place it, in my seventh year. The circular cover of a pasteboard collar box had been given to me. I separated the top from the rim, and after bending in one side of the rim till it cracked, I pressed the cracked portion down till it met the other side. The novel shape thus produced pleased me; and I afterwards placed the bent rim on the center of the circular top, and went to the trouble of fastening it there with needle and thread. When asked what it was, I said it was "my toy." "Toy" was a word we did not often use, yet I understood its meaning. Its comparative strangeness seemed to fit it, better than anything else I could think of, to the exigencies of the case. But I remember well my sense of embarrassment at not being able to give a better account of the thing I had made; and a little feeling of doubt as to why I should like it so much, when I could find no way of putting it to use like my other toys.

There is perhaps no one idea or habit acquired in connection with the practice of drawing that may be carried over into a wider range of mental activity than this recognition of the beauty of symmetry. How this idea is acquired by little children and how it may be utilized in their early education are problems deserving of careful study. The present investigation throws little light upon these problems. They offer a peculiarly attractive field of investigation to intelligent teachers in kindergartens.

3. Several pretty well-defined elements may be recognized as entering into a child's early efforts in drawing. His earliest, aimless scribbling doubtless gives a certain pleasure of movement, as well as the pleasure of producing a change, — a new mark. Yet it seems to give especial gratification as an imitation of an act he has seen his elders perform. His chief interest at this period appears to relate to the act rather than to the product. As far as my observation extends, very little children, who are making their earliest experiments in scribbling or making "pictures," are much more likely to call the attention of others to what they are doing than to the results after they have finished. The testimony of other observers whom I have questioned on this point is not uniform; but I believe the general rule will be found to be as I have stated it.

After a time the little scribbler comes to regard what he has produced as a representation of some object with which he is familiar. The prominent factors in his drawing at this stage would seem to be, first, the motor images arising from his former experiments in making marks; and secondly, images (chiefly visual) of the objects he is seeking to represent. The notable fact here is that the corresponding images of these two sorts are very slow to come into any vital association with each other. The motor images of course predominate. The first "pictures" are very much like the indiscriminate scratches that have previously been made. By little and little the image of the object to be represented comes to assert itself, and exercise some little censorship over the work of the hand. But this image of the object is not the image of an individual thing, present to the eye and receiving attentive examination. The child is wholly absorbed in his drawing; he has no potential energy of attention left that he can turn to the observation of the thing he would represent. Whatever guidance his movements are to receive from the form of the real object must come from an image of that object previously acquired and held without effort in the mind. This is the period of "conceptual drawing," which Mr. Stillman regards as so significant in its bearing on the development of idealistic art; the period of "the first efforts of children to shape resemblance of the things they love. This was, and is, invariably the presentation of conceptions, not studies from an object."¹

¹*Op. cit.*, page 253.

We are not concerned here with the theory of art to which Mr. Stillman would make these facts tributary; but the facts themselves demand further consideration. The stage of conceptual drawing is, as has been repeatedly remarked, a very noticeable period in the history of most children who draw at all. They have generally acquired considerable power of attention before this stage is reached, and they certainly observe objects much more minutely than their drawings seem to indicate. They have not, however, acquired much power of holding two or three things in mind at one time. And this is not all. The age we are considering is characterized in most children by a lively fancy, and they take great delight in detecting resemblances, no matter how remote. The same disposition which leads them to take pleasure in slight and far-fetched resemblances, makes them very indulgent toward their own representations, however unrecognizable to other people.¹ Another reason why they do not at this age make critical comparison between their drawings and the things they have drawn, may be found in the fact that few of them have ever seen their elders make such comparison.

I have described the image of the object as chiefly visual; but it is by no means wholly so. The child has no thought ordinarily of delineating one aspect of the object, as it appears to the eye at any given moment of time. He seeks to represent the object as he *knows* it, — something most likely which he has seen many times in many points of view, which he has handled and had to do with in a variety of ways. That aspect, or better those aspects, which he remembers most vividly will be likely to have most influence upon his drawing. “The sketch may be crude, but it may embody *ideas*, and these will be forcibly expressed. Children have the happy faculty of getting at the ‘true inwardness of things’ without loss of time. . . . Children seize the spirit of things as well as their essential forms.”² This may be a somewhat stronger assertion than the facts will warrant, yet it undoubtedly points in the right direction.

I have just seen my little friend, J., two and a half years old, make her first picture, a “papa.” She drew an oval figure with a

¹Compare Sully, *op. cit.*, pp. 388, 389.

²Bailey. *A First Year in Drawing*, pp. 6, 7.

continuous line, and continued for some time round and round, carrying the pencil in a direction opposite to that of the hands of a clock, with a movement much like that she had previously employed in "writing." When asked where papa's head was she pointed to one end of the oval. When asked where his feet were she pointed to the opposite end. She then went on drawing a seemingly never-ending line. When she finally stopped, she said, "Now I will make him dance with J." So a zig-zag line was made near one end of the figure to represent the movement of dancing. This line bore more resemblance to a nose and mouth than anything that had previously appeared, and was taken by a friend, to whom the figure was shown, as an intended representation of a human face,—another illustration of the difficulty to which Miss Shinn has referred in her report, of interpreting one of these early drawings correctly without having seen it in the process of making. The child in this case was evidently engaged in a dim, uncertain way in representing her papa as she knew him, emphasizing that aspect which she happened especially to think of at the time. Papa's dancing with J. was as much a part of J.'s image of him as was any one of his visible features.

Another friend of mine, W., a wide-awake young gentleman, drew his first picture the day he was twenty-eight months old. This was unfortunately lost. Eight days later he drew the "moo-cow" which is here presented (Fig. 64). The figure is formed by

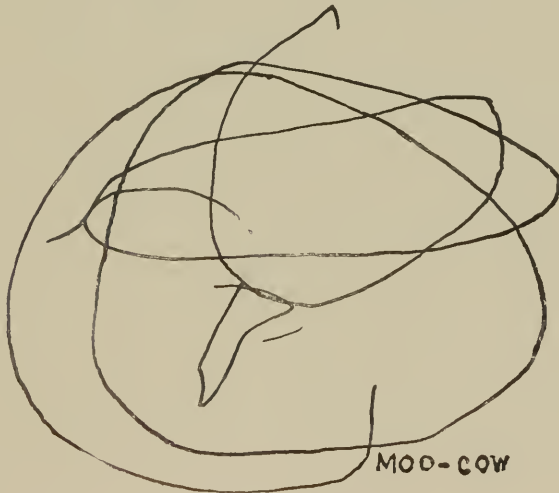


Fig. 64. 29th month

the continuous oval line, as in the case of J.'s "papa;" but the sharp outline in the middle of the scrawl was intended to represent the cow's horn.

The observations here reported differ in only one important particular from those of Professor Baldwin, as described in his "Mental Development in the Child and the Race," Chapter V., Section 1. Professor Baldwin's child drew with a copy before her. From the nineteenth to the twenty-seventh month there appeared no evidence that her own drawing was influenced by the presence of the copy. "But early in the twenty-seventh month a change came. I drew a rough human figure, naming the parts in succession as they were made: she suddenly seemed to catch the idea of tracing each part. . . . The fact was unmistakable that with the simplification of the figure by breaking it up into parts had come also the idea of *tracery imitation*, and its imperfect execution. By the 'idea' of *tracery imitation*, I mean the sense of connection between what was visually in her own consciousness and the movement of her own hand or pencil. The visual pictures of copies had been there in all her previous trials, and so had the hand movements, both the sight of them and the muscular sensations; but there had been no sense of a connection between them and agreement in the result when they were compared."¹

In the records which we present, I cannot make out a time at which the idea of such *tracery imitation* first appeared. I should rather say that it was present in some dim form from the start. It should be noted, however, that it is not strictly "*tracery*" imitation that we have to do with here to any great extent, for very few of the earliest drawings in these series were made from a copy. Professor Baldwin's child, on the contrary, was provided with drawings to copy from her nineteenth month on. The earliest of these drawings, moreover, were made by children of about the same age as was Professor Baldwin's child when the idea of *tracery imitation* first appeared. Ruth W. in her twenty-seventh month had drawn her first mouse by accident. When she tried to repeat the performance, she found it too much for her. After a copy had been drawn for her she got on well enough, and with every evidence that the

¹*Op. cit.*, pp. 86, 87.

process was what Professor Baldwin calls "tracery imitation of the child's own mental picture." J., immediately after drawing the "papa" to which reference has already been made, drew a very similar "mamma." When questioned, she located head and feet as she had done with the other figure; then voluntarily pointed to the middle of the scrawl and remarked, "Dat is her 'tomach." Though the scrawl bore no observable resemblance to the object it was said to represent, the idea of such resemblance seems not to have been wholly wanting.

4. What remains to be said under the third topic will be given in connection with the fourth. The two are so closely associated that the one cannot be adequately treated apart from the other.

It is clearly a mistake to regard a child's drawing as a fair representation of his mental image of the thing represented.¹ The child lacks both the power of muscular coördination and the mastery of the technique of drawing which such interpretation presupposes. However much we may be disposed to treat the drawing as an embodiment of the childish concept, we must not forget that it is such only in a very limited degree. This is made the more evident by the fact that children become discouraged in drawing because the results do not satisfy them.

It is to be observed however that with slight, occasional exceptions these children were satisfied with their work until they attempted to copy either from others' drawings or from nature. Ruth in her fourth year tried rather unwillingly to draw from the object; but she was "thoroughly disgusted" with the result, and would not repeat the attempt unless strongly urged to do so. Carroll, in his forty-fourth month, was dissatisfied with his first attempt to draw from the object, and later attempts of the same sort led to the same result. When Ruth W., in her twenty-eighth month, looked at her own hands after making hands for her "little girl," she seemed dissatisfied and turned to something else. Her later attempts to draw from nature seemed marked with greater confidence.

¹ Mr. Sully's interpretation of children's drawings with reference to the light they throw on the nature of the childish concept, and also with reference to the relation of childish execution to childish concept, is excellent. See *op. cit.*, pp. 394, 395.

This discouragement was not so manifest in copying others' drawings. In fact we have instances in which the child's confidence was increased by having a copy to draw from. Ruth showed no inclination to imitate others' drawings at first, but after some months began to imitate her sister's work. Bayard attempted to copy only occasionally. Carroll, who began to draw in his thirty-second month, showed no clear disposition to copy others' drawings till he was nearly four years old. Ruth W. had to be encouraged by a copy to draw her second mouse, but did little real copying in the whole period under consideration. Her general backwardness in drawing, and the decided impetus which she received after the age of six, from seeing other children's drawings, lend emphasis to our recognition of the influence of imitation in this field.

It is a common remark of observant teachers that children who do much "conceptual" drawing and only such, soon reach a limit to their improvement. Says Mr. Henry T. Bailey in the report of the Massachusetts State Board of Education for 1893 - 1894: "Ordinarily the sketches of third or fourth year pupils are no better than those of the first year, and often not so graphic. The work does not improve much by mere practice; it must be reinforced by technical instruction." On the other hand we find drawing from nature hard and discouraging to some of the very little ones. We can not undertake to draw pedagogical conclusions here. The facts are merely presented as having some bearing upon the problem of instruction in drawing, but with no presumption that they alone solve the problem.

One or two further indications may be noted. It will be observed that such imitation of others' drawings as these children present is not a copying line for line. It is imitation of the freest sort. Such imitation cannot be regarded as a limiting of individuality, but only as a discovering to the child of new possibilities of self-expression.

I may illustrate again from my own recollections: In my earlier school-days, drawing was not taught in our school; yet the most of us drew more or less on our slates for amusement, horses and locomotives being favorite subjects. One of our number made a sensation one day by bringing word that a new boy was coming to

school, who could draw locomotives all smashed up in a collision and horses as natural as life. The new boy came, and we all began drawing smashed-up locomotives and horses more or less like his. One chief point of superiority in his horses was in the shape of their hoofs. I remember for my own part criticizing those hoofs as being too narrow and appealing to a live horse for confirmation. After that I still drew the new boy's type of hoof, but drew it broader than at first. Inasmuch as I had no marked talent for drawing, it is fair to suppose that the others made as good use of the copy as did I. In my own case the result of it all was to give increased freedom and confidence in drawing.

On a much higher plane, a striking example of the influence of good models is given by Mr. Howells in "A Little Girl among the Old Masters."

5. The purpose of these drawings was so largely pictorial as to leave little room for the employment of any strictly symbolic figures. Whatever seems to have been in any degree symbolic, is hardly more than a mere simplifying of figures to avoid the difficulty of naturalistic representation. When a child merely "plays" that his shapeless scrawl is this or that, we may fairly say that its use is to him symbolic; but it has seemed to me that in nearly all of the drawings I have seen there appeared some purpose — often vague and uncertain — to make the picture body forth the conception of the thing for which it stood.¹

6. Comparatively little of this work has become in any marked degree conventionalized. Even the few conventional figures set as copies have had little influence upon the children's productions in this respect. The series of "papas" drawn by Ruth is, however, of especial interest as marking somewhat distinctly the growth of conventionality. The first five drawings in this series are men of the type which Ricci found the smallest children in Italy drawing, consisting chiefly of head, legs, and feet. The arms, after some difficulty, succeed in making a place for themselves. The toes are

¹ Professor Sully's notes on the so-called symbolic drawing of children seem to me particularly good. (*Comp. op. cit.*, pp. 334, 336, and 383). In fact, the chapter referred to displays throughout a rare insight into the thoughts and ways of little children.

represented by transverse lines, varying in number, and drawn across the feet. In Figs. 29 and 30 the trunk finds recognition; and from 31 on through 36 the outline becomes more and more conventional. It is to be observed that this marked conventionalization coincides in time with the growing tendency on Ruth's part to copy from her sister. It would be a mistake, however, to charge this conventionalizing tendency mainly to the practice of following another's copy, as M. Passy has done. It seems to me to result chiefly from the frequent repetition of the same figure, till the easiest way of producing it has been discovered.

In the early making of scrawls, motor images must largely predominate. When the idea of making the drawing resemble the conceived object is first clearly apprehended, the little artist is obliged to give to each effort at representation as close attention as he is capable of giving, in order to bring out even the small degree of resemblance that he can produce. But in the course of time he acquires a new set of well-defined motor images, arising from his directed and purposive movements. The motor image regains as much of its ascendancy as had been lost;¹ and the movements made under the direction of motor images, as they become more thoroughly mastered, tend more and more to become relegated to the control of the lower nervous centers, — to become, in a word, automatic. In the development of handwriting, this tendency to automatism is a great advantage, relieving the higher centers of a burden of work they can not well carry without slighting the thought to be expressed in the writing. Yet even in the case of handwriting, this withdrawal of attention from the movements to be performed and the forms to be produced, if it take place at too early a period, is disastrous to the excellence of execution. I think we may find here one chief reason for the fact that children in the intermediate and higher grades of a school often write less perfectly than they did in the lower grades. In the development of drawing, this tendency to a kind of automatism is death to improvement, unless it can be associated with some form of exercise which compels the continuance of attentive effort. Ruth, who is the oldest of the four children whose work is here presented, had at the time this

¹ Compare Sully, *op. cit.*, p. 387.

record closed already acquired that facility of execution which is accompanied with a falling off of attentive effort, and consequent arrest of progress.

7. The alternation of attention between detail and general outline is noticeable. The earliest drawings of these children present a few general outlines, with one or two characteristic features of the thing drawn. Closer observation of the objects drawn led to increased attention to detail in drawing; but at the same time the general outline degenerated. The pictures exhibit a tendency to lose themselves in the multiplicity of details, and present some of the characteristics reproduced in figures VI., VII., and VIII. of Professor Baldwin's work. Ruth, whose pictures never quite degenerated into mere jumbles, never drew from the object of her own accord. Carroll, on the other hand, was more inclined than the others to draw from nature, and his pictures are at times indistinguishable. There are fluctuations in this particular, but the rule seems to be that each considerable advance in realism was attended with increased attention to detail, and with a corresponding detriment to the organic unity of the drawing. With his limited range of attention, the little one does not seem able to accomplish a new differentiation in his figures without some loss of integration; and more perfect integration must be paid for with some corresponding loss of previously acquired differentiation.¹

8. Herbert Spencer has said, in speaking of nature's hints in the earliest tendencies of children, "Which of all the processes of representation gives it most delight? Coloring. Paper and pencil are good in default of something better; but a box of paints and a brush — these are the treasures. The drawing of outlines immediately becomes secondary to coloring, — is gone through mainly with a view to the coloring. . . . That priority of color to

¹Dr. Lukens has called attention (in *The Pedagogical Seminary* for October, 1896) to the process by which from a tangle of meaningless marks is evolved a consistent drawing, in which every line is significant. Mr. Sully, too, has a paragraph relating to this process (*op. cit.*, p. 382). The roughly rhythmical alternation of attention between broad outline and fine detail, to which I have referred above, will, I think, supplement their accounts in one important particular. It seems, moreover, to suggest pedagogical considerations of marked significance.

form, which, as already pointed out, has a psychological basis, and in virtue of which psychological basis arises this strong preference of the child, should be recognized from the very beginning." In my own observation of many children, I have been struck with the comparatively slight evidence that appeared of any such strong preference for color as Mr. Spencer describes. Professor Barnes sums up his observations on this point as follows: "A child uses color naturally for decorative effect; for the drawings he prefers strong black or white." Philip Gilbert Hamerton said: "The historical development of drawing may always be seen in the practice of children when left to draw for their amusement. They begin, as the human race began, with firm outlines, representing men and animals, usually in profile. The next thing they do, if left to their own instincts, is to fill up the spaces so marked out with colors, the brightest they can get. This is genuine primitive art."

Doubtless children show great individual differences in this particular. Ruth showed greater interest in color than in form. Carroll was not observed to take any interest in color. Ruth W. developed a marked interest in form before she showed any like interest in color.

We seem to be on the road to a fair understanding of the successive stages in the normal development of drawing in very young children. The clearing up of this subject, when it can be accomplished, will be of considerable theoretical and practical value; not only for its bearing upon questions of education in drawing, but still more for its connection with other and larger questions, — especially with the question of the normal development of expressive, constructive, and imitative activities in general.

It is hoped that these notes may contribute in some degree to the determination of these stages of normal development.

Taking the observations here reported in connection with the work of other observers already referred to, our present knowledge of the beginning of children's drawing may be stated about as follows: It appears that there is much fitfulness and fluctuation in children's interest in drawing; but a certain succession of types of product seems fairly stable. The earliest use of the pencil seems to be, as Ricci describes it, "to interlace on the paper a network of

lines running in all directions," but especially from side to side. This is gradually succeeded by a continuous line carried round and round, making a confused, elliptical figure (as in Fig. 64).¹ The earliest efforts at pictorial drawing, whether prompted by suggestion from older persons or stumbled upon by way of the discovery of chance resemblances, present a general similarity to the marks made without pictorial purpose. The visual image gains but slowly a directing influence over the work of the hand. The child at this stage ordinarily makes no attempt to represent the exact appearance of a present object, but seeks to portray ("describe" as Ricci puts it) the object as he knows it, from whatever source his knowledge may have been gained. He emphasizes one feature or another, as general interest or passing whim may dictate. The effort at more exact representation leads to a multiplication of details, to the disadvantage of the general outline. Drawing directly from nature tends to increase this attention to minor details, and may lead to discouragement. The example of others' drawings is likely to prove stimulating, but may discourage. With increased practice comes a kind of automatic skill, and after a time the forms of drawing become measurably fixed, like the forms of a handwriting. The imitation of conventional figures drawn by others tends to increase this tendency to conventionality. After this conventional stage is reached, the child's work is liable to deteriorate, unless it be kept in the way of progress by persistent imitation of nature or by regular instruction.

We have in this study and in those to which reference has been made, insufficient data on which to base any final conclusions. But this rough outline is offered as a working hypothesis, to be corrected or verified by further investigations.

¹ Compare Fig. V., *a*, in Baldwin's series (*op. cit.*, p. 85); and Figs. 1 and 2 in Lukens' first series. See also Professor Barnes' *Studies in Education*, Vol. I., pp. 22, 23.

For convenience, a list of the publications referred to in the text is appended:—

Bailey, Henry T. A First Year in Drawing. Boston, U. S. A. Educational Publishing Company, 1894.

Bailey, Henry T. Report on Industrial Drawing, in Fifty-eighth Annual Report of the Board of Education (Massachusetts, 1893 - 1894). Boston, 1895.

Baldwin, James Mark. Mental Development in the Child and the Race. Methods and Processes. New York. Macmillan & Co., 1895

Balfour, Henry. The Evolution of Decorative Art. London. Rivington, Percival & Co., 1893.

Barnes, Earl. A Study on Children's Drawings. In *The Pedagogical Seminary*, Vol. II., p. 455.

Barnes, Earl (Editor). Studies in Education. Stanford University, 1896. Six numbers of the *Studies* have appeared up to the time that these *Notes* go to press. Each number contains reproductions of children's drawings with commentary upon the same.

Collier, John. A Primer of Art. London. Macmillan & Co., 1882.

Goodyear, Wm. H. The Lotiform Origin of the Ionic Capital. In *The Architectural Record*, Vol. III., p. 137. (Quarter ending December 31, 1893.)

Hamerton, Philip Gilbert. Article on Drawing in the *Encyclopedia Britannica*, ninth edition.

Howells, W. D. A Little Girl among the Old Masters. Boston. James R. Osgood & Company, 1884.

Locke, Miss Josephine C. With What Should Drawing Begin? Proceedings of the International Congress of Education. New York, 1894. (Page 491.)

[Compare with this the interesting article on Drawing in Chicago Schools, by Forrest Crissey, in *The Outlook* for December 12, 1896.]

Lukens, Herman T. A Study of Children's Drawings in the Early Years. In *The Pedagogical Seminary*, Vol. IV., p. 79. (October, 1896.)

Passy, J. Note sur les Dessins d'Enfants. In *Revue Philosophique*, Vol. XXXII., p. 614. (December, 1891.)

Popoff, M. Lazar. The Origin of Art. In *Popular Science Monthly*, Vol. 44, p. 827. (April, 1894.)

Ricci, Corrado. The Art of Little Children. Translated by Mrs. Louise Maitland. In *The Pedagogical Seminary*, Vol. III., p. 303. (October, 1895.) With introductory note by Professor Earl Barnes.

Rooper, T. G. Drawing in Primary Schools. New York and Chicago: E. L. Kellogg & Co., 1894. Based upon M. Passy's article in the *Revue Philosophique*.

Shinn, Milicent Washburn. Notes on the Development of a Child. Parts I. and II. University of California Studies. Berkeley; Published by the University, 1893, 1894.

Spencer, Herbert. Education: Intellectual, Moral, and Physical. New York. D. Appleton & Company, 1861.

Stillman, W. J. The Revival of Art. In *The Atlantic Monthly*, Vol. LXX., p. 248. (August, 1892.)

Sully, James. Studies of Childhood. New York. D. Appleton & Company, 1896.

